



CASE STUDY /

## **Ansys + OPTIX JSC**

“Using an OpticsBuilder file (.ZBD) to manage design changes between our optical and mechanical engineers makes our prototype analysis 20 to 30 times faster and eliminates the possibility of redesign errors.”

**Nencho Uzunov**

Optical Engineer / OPTIX JSC

# OPTIX JSC Optimizes Product and Design Development with OpticsBuilder and OpticStudio

OPTIX JSC is the only company in Bulgaria that manufactures a full range of optical devices and systems for army and law enforcement officials. It is also the first Bulgarian firm to administer a quintuple integrated management system adhering to the International Organization for Standardization (ISO) in quality management, information security, environmental protection, military standard of NATO, and labor health and safety.

Still, it is a shared goal within the optics manufacturing industry to reduce product and design development time while maintaining product integrity and quality. The most common approach in achieving this has been to examine the production process for ways to optimize workflows.

For OPTIX JSC, this meant taking a closer look at the collaboration among engineers, designers, and computer-aided design (CAD) users to incorporate a better system that would streamline product and design development in the most efficient way. To accomplish this, OPTIX JSC effectively integrated Zemax OpticsBuilder and Zemax OpticStudio to accelerate and optimize product and design scheme development.

## / Challenges

As the need to optimize workflows increased, OPTIX JSC needed a way to connect team members more seamlessly, particularly with file sharing throughout each stage of production.

The primary challenge was to accelerate the production process while maintaining efficiency and product quality.

OPTIX JSC sought a sophisticated software equipped to optimize workloads, integrate well with CAD platforms in place, and simplify the product and design scheme development process.

## / Ansys Products Used

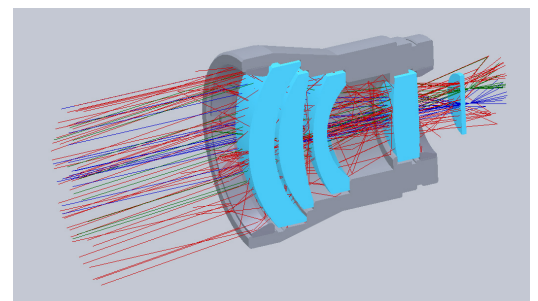
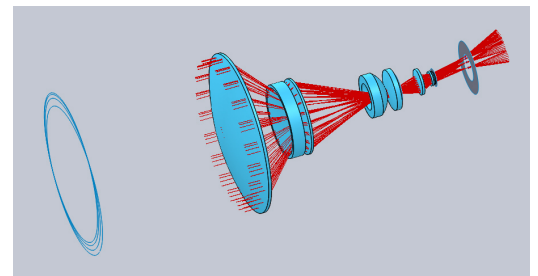
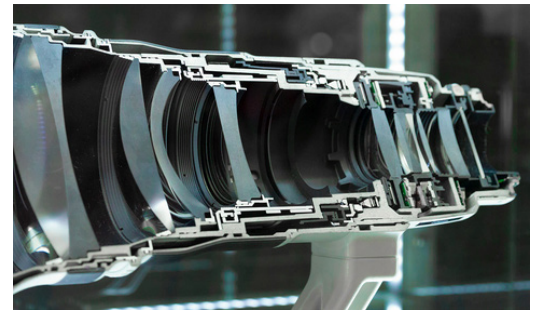
- Zemax OpticsBuilder
- Zemax OpticStudio

## / Engineering Solution

As a Zemax customer for more than 20 years, OPTIX JSC has embraced OpticStudio since 2014 as its end-to-end optical systems design solution, effectively integrated with the CAD platform used by its mechanical design team. However, with increased workloads and greater challenges, OPTIX JSC sought a solution tailored for workflow optimization that would integrate more fully with its CAD platform, across all disciplines, environments, and departments.

In addition to other capabilities, OpticsBuilder allows CAD users to convert complete optical designs from OpticStudio into CAD and export optical drawings to manufacturing for next-stage processing.

Since integrating OpticsBuilder, OPTIX JSC has streamlined its production workflow while reducing product and design development time and costs. The enhanced workflow has also improved engineering and product efficiency with less late-stage redesign or errors.



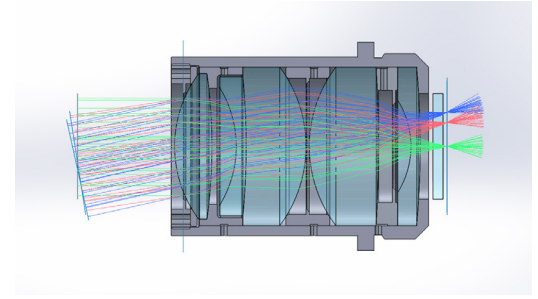
## / Benefits

- OpticsBuilder optimizes the workflow between OpticStudio and CAD platforms, acting as a bridge to easily convert and transfer optical designs, files, and workloads for more seamless collaboration among team members.
- With OpticsBuilder, OPTIX JSC has reduced product and design scheme development time and costs, while improving efficiency with less late-stage redesign or errors.

## / Company Description

Founded in 1998, OPTIX JSC specializes in the design and manufacturing of optical, optomechanical, and optoelectronic assemblies and devices for military and law enforcement applications. OPTIX JSC is the first firm in Bulgaria to successfully implement a quintuple integrated management system adhering to the International Organization for Standardization (ISO) in quality management, information security, environmental protection, military standard of NATO, and labor health and safety.

Further, OPTIX JSC is the only company in Bulgaria that develops and manufactures a full range of special optical devices and systems for the army and police forces, including night vision goggles and binoculars, integrated systems for day and night surveillance, special equipment for measurement and testing, and more.



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