



# Matlab-OSLO Toolkit

## Description

The Matlab-OSLO Toolkit is a set of scripts and functions designed for the rapid transfer of optical system and performance data from OSLO optical software into the Matlab environment. The software is run in Matlab and uses OSLO as a server. The Matlab-OSLO Toolkit is typically used to confirm consistency among data models and then to manipulate and analyze the models in order to integrate them, such as with thermal and structural stability models. It also allows for a Matlab driven optical model to be created based upon system-level modeling of wavefront sensing and control.

## Features and Benefits

- This toolkit gives optical analysts essential higher level command functionality when using Matlab and OSLO together.
- The toolkit saves time and ensures accuracy by automating many repetitive processes such as integrated modeling on large optical systems.
- The software is not specialized to any specific optical system, increasing its compatibility.
- The toolkit increases OSLO's analytical capabilities by integrating it with Matlab.
- Analytical capabilities include moving optical elements in a rigid body, adding surface deformations to optical elements, and querying exit pupil optical path data as well as image surface point spread function data.

## Applications

This software toolkit can be used to design optical systems for virtually any application.

## For More Information

If you are interested in more information or want to pursue transfer of this technology, GSC-15138-1, please contact:

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