

Tutorial 101.01: Introduction to Parametric Optimization

Abstract

This tutorial provides an introduction to the usage of the parametric optimization in VirtualLab. As an example, we consider the search of the focus of a spherical lens.

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Keywords:	parametric optimization, introduction, laser system, lens system, focus, constraint, Starter Toolbox, VirtualLab Advanced
Requirements:	VirtualLab Advanced version 5.0 or higher – Starter Toolbox
Version:	2.1
Files:	Corresponding files can be found here .
Related Scenarios:	Scenario_100.01 , Scenario_101.01 , Scenario_315.01
Related Technical Notes:	TN.021

The actual tutorial is contained in the file Tutorial_101.01_Introduction_Parametric_Optimization.pdf. It explains the creation and the usage of the *Parametric Optimization* document at the example of minimizing the beam radius step by step.

The final *Parametric Optimization* document is available via the file Tutorial_101.01_Introduction_Parametric_Optimization.opt. Further, the file Spherical_Lens_System.lpd is supplied. It contains the initial light path diagram for which the optimization document is created in this tutorial.

Technical Support

If you have any questions, remarks or problems concerning this tutorial, or in using VirtualLab in general, please do not hesitate to contact us by E-Mail support@lighttrans.com.

Please use the update service to install the current version of VirtualLab. Alternatively you can use the latest **Trial Version** of VirtualLab which is available at our [download site](#). If you have been registered already for an older trial version, just contact us by [E-Mail](#).

To ensure that this tutorial gives the same results as described, set the global settings to the default values. In VirtualLab this can be done in the **Extras > Global Options** dialog with the **Reset All** button.