

LightTools Training

Munich, Germany | 18-22 October 2010

OPTICAL RESEARCH ASSOCIATES



Register today for the upcoming *LightTools*[®] training in Amsterdam. To register or for more information, contact us about these events.

LightTools is a unique optical engineering and design software product that features virtual prototyping, simulation, and optimization of precision illumination applications. The software has adapted solid modeling technology to accommodate the inherent accuracy required to simulate ray paths of light as they traverse through and within optical elements and mechanical structures. The software is straightforward to use, accurate, has the most advanced capabilities commercially available, and supports the tasks of design and engineering iterations in addition to analysis.

Introduction to Illumination Design Using *LightTools* (4 days, €1600)

Course Overview

This 4-day short course is a practical introduction to *LightTools* for engineers and scientists who wish to model and analyze the interaction of light with opto-mechanical systems. It assumes some familiarity with optical concepts and terminology. The course will be taught using *LightTools* 7.1. The course is based on interactive examples of various illumination systems rather than lectures. This hands-on approach maximizes time spent using *LightTools* while incorporating key illumination concepts in their practical context. Workshop problems provide opportunity for additional practice. The course will include how to:

- Create an opto-mechanical system model within *LightTools*, with native geometry or imported from a CAD program
- Use Surface Properties to define the interaction of light with various surface
- Use Boolean operations to construct complex structures
- Set up an illumination system, including multiple sources and multiple receivers
- Understand, interpret, and manipulate the intensity and illuminance analyses
- Create photorealistic renderings of models to visualize the system performance
- Improve system performance by using *LightTools* optimization with its various merit functions

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Advanced Topics in *LightTools*: COM Macro Programming (1 day, €400)

Course Overview

This one-day course provides a practical overview of *LightTools* COM Macro Programming. The course includes lectures, demonstrations, and hands-on computer workshop sessions. Familiarity with *LightTools* basic features is assumed.

The COM Macro Programming capability allows users to automate tasks within *LightTools*. The course will use Excel Visual Basic for Applications (VBA) to control *LightTools*. Basic programming experience is helpful, although proficiency in VBA is not necessary.

Course Outline (Friday)

Topics covered in the course will include:

COM Macro Programming

- Accessing *LightTools* via Excel's VBA COM interface
- *LightTools* JumpStart Macro Library
- Direct database access

LightTools Course Instructor

Jake Jacobsen, Ph.D. (Optical Research Associates), is the CODE V and *LightTools* Technical Marketing Manager and is involved with product planning as well as technical and sales support. Dr. Jacobsen has over 10 years' experience in imaging and illumination design.

IMPORTANT:

- Attendees are responsible for their own arrangements for accommodation.
- Tuition includes all teaching materials.
- Tuition must be paid in full prior to attendance. Minimum enrollments apply.

Contact Us



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