

# TracePro® Spring 2018 Training Courses

TracePro is a flexible and powerful ray tracing program based on ACIS®, the industry-standard solid modeling kernel. It predicts intensity patterns in candelas and calculates illuminance on any surface. TracePro can model any surface type, and any surface can be made a source of light. TracePro features an easy and fun to use, state-of-the-art graphical Windows interface and strong data exchange capabilities with CAD and lens design software.

## Introduction to TracePro April 10<sup>th</sup> and 11<sup>th</sup>, 2018

## Optimization with TracePro April 12<sup>th</sup> and 13<sup>th</sup>, 2018

*Please note that the Introduction to TracePro course should be considered a pre-requisite for the third and fourth days of training.*

<b>Day 1</b>	<b>Introduction to TracePro</b> <ul style="list-style-type: none"> <li>• Introduction to TracePro</li> <li>• Ray tracing Overview and Principles</li> <li>• Importing geometry and creating geometry in TracePro</li> <li>• Applying properties</li> <li>• Defining sources</li> <li>• Ray tracing</li> <li>• Analyzing the results</li> </ul>
<b>Day 2</b>	<b>Introduction to TracePro</b> <ul style="list-style-type: none"> <li>• Review of Day 1 and Questions</li> <li>• Creating custom properties</li> <li>• The Scheme macro language and macro recorder</li> <li>• Importance Sampling</li> <li>• Raytrace options and settings</li> <li>• Additional analysis tools including ray tables and path sorting</li> <li>• TracePro utilities</li> </ul>

<b>Day 3</b>	<b>Optimization with TracePro</b> <ul style="list-style-type: none"> <li>• Principles of optimization</li> <li>• Overview of the 2D and 3D optimizers in TracePro</li> <li>• Creating geometry in the optimizers</li> <li>• Defining variables</li> <li>• Defining optimization goals and targets</li> <li>• Optimization examples including lens, reflector, and light guide example</li> </ul>
<b>Day 4</b>	<b>Optimization with TracePro</b> <ul style="list-style-type: none"> <li>• Using the Scheme macro language in the TracePro optimizers</li> <li>• Tolerancing and sensitivity analysis</li> <li>• Optimizing the position and rotation of CAD imported objects in TracePro</li> <li>• Selecting the best surface and material properties using the optimizer</li> <li>• Additional examples</li> </ul>

We strongly recommend students take, or have taken the Introduction 2 day course in the past, before moving on to the more advanced classes. Please contact us if there are any questions on these courses.

A student taking all four days of training will leave with a full and complete knowledge of TracePro and its features and capabilities, and be ready to use that knowledge on a daily basis.

## Introduction to TracePro April 10<sup>th</sup> and 11<sup>th</sup>, 2018

Days 1 and 2 of our Introduction to TracePro training is an excellent option for users who have little or no experience with TracePro, as well as long-time users. The feedback we receive from this training is that everyone learns something new. We will cover all aspects of TracePro during these two days. In the first day of this two-day course we will take a TracePro model from beginning to end, starting with importing, defining, and modifying the geometry, then applying properties, defining sources, running the raytrace, and analyzing the results. Day 2 will focus on more advanced features in TracePro such as custom property creation, the macro language, Importance Sampling, advanced raytrace options, and the TracePro utilities.

**Pre-registration with payment must be made at least 3 weeks before the start of the course. The fee is refundable up to that point (\$600 fee is charged for later cancellations).**

# TracePro<sup>®</sup> Spring 2018 Training Courses

## Optimization with TracePro

April 12<sup>th</sup> and 13<sup>th</sup>, 2018

**Days 3 and 4** is our course on **Optimization in TracePro**. The first day of this intensive hands-on course will cover the theory behind optimization and then provide a full overview of the 2D and 3D optimizers available in TracePro. All aspects of the optimization process, including creating the geometry, applying properties, setting up sources, and defining optimization targets will be addressed. After that we will work through several optimization examples featuring lenses, reflectors, and light guides. **Day 4** picks up where the first day of this session leaves off and will cover more advanced topics in the TracePro optimizers including using the Scheme macro language to expand the capabilities of the optimizers. Additional hands-on examples will be presented including tolerancing with the optimizer and using the optimizer to select the best surface and/or material properties to meet a user defined goal.

Classes will be held at the Lambda Research Corporation headquarters from 9AM to 4:30PM every day. Directions will be provided on request.

Lodging is available at nearby hotels. Attendees are responsible for their own room arrangements and should make reservations directly with the hotel

### **Courtyard Boston – 3.3 miles away**

102 Constitution Ave, Littleton, MA 01460 – Tel# 978-440-5040

<http://www.marriott.com/hotels/travel/boslt-courtyard-boston-littleton/>

### **Westford Regency Inn – 7.5 miles away**

219 Littleton Rd, Westford, MA 01886 – Tel# 978-692-8200

<http://www.westfordregency.com>

### **Hampton Inn & Suites – 7.7 miles away**

9 Nixon Rd, Westford, MA 01886 - Tel# 978-392-1555

<http://hamptoninn3.hilton.com/en/hotels/massachusetts/hampton-inn-and-suites-westford-chelmsford-BOSWFHX/index.html>

### **Hilton Garden Inn Devens Common - 8.8 miles away**

59 Andrews Parkway, Devens, MA 01434 - Tel# 978-772-0600

<http://hiltongardeninn3.hilton.com/en/hotels/massachusetts/hilton-garden-inn-devens-common-ORHDCGI/index.html>

Tuition includes all materials, individual use of computer, and lunch. Please notify your sales representative if you have any food allergies or require a vegan/vegetarian lunch. We will try and accommodate your request. ***Tuition must be paid in full prior to attendance.***

**ATTENDANCE IS LIMITED. PRE-REGISTRATION WITH PAYMENT MUST BE MADE AT LEAST 2 WEEKS BEFORE THE START OF THE COURSE. THE FEE IS REFUNDABLE UP TO THAT POINT (A FEE IS CHARGED FOR LATER CANCELLATIONS).**

**Lambda Research Corp.**  
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Email [sales@lambdares.com](mailto:sales@lambdares.com)

## Registration Form

Company \_\_\_\_\_ Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

- Introduction to TracePro-\$1200 (April 10<sup>th</sup> and 11<sup>th</sup>, 2018)  
 Optimization with TracePro-\$1200 (April 12<sup>th</sup> and 13<sup>th</sup>, 2018)

Credit Card (Circle one): Visa / MasterCard

***(Do not sent by email, ask for a sales representative to call you or send by fax)***

Credit Card No. \_\_\_\_\_

Expires \_\_\_\_\_ Sec. Code: \_\_\_\_\_

Card Holder \_\_\_\_\_

Signed \_\_\_\_\_