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LuciadLightspeed 2D Graphics

Hexagon's Geospatial Division

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Introduction

This document provides a description of Hexagon Geospatial's offerings for LuciadLightspeed 2D graphics trainings.

Target Audience

Luciad Portfolio product trainings are intended for:

- Customers new to Luciad Portfolio products,
- Customers experienced in Luciad Portfolio products who are interested in refreshing their knowledge and learning about the new capabilities, or
- New team members that have joined an existing project team and wish to benefit from a knowledge transfer and exchange with Hexagon Geospatial engineers, and as a result be up to speed with Luciad Portfolio products capabilities.

Training Organization

Luciad Porfolio trainings are organized for small groups for maximum exchange between the trainer and the trainees. Hexagon Geospatial offers two training formats for the Luciad Portfolio:

- **Seminar**: a classroom training where theoretical presentations are combined with hands-on exercises. The trainer assists the trainees with the exercises, reviews their solutions, and provides model solutions for the exercises at the end of the training.
- **Workshop**: a solution for a specific need is developed working together with the trainees. Workshops are less presentation-focused and spend more time on actual analysis, design, and implementation work with a clear benefit for the customer. The goal is to present tangible results at the end of the workshop.

Seminars and workshops can be organized on demand either on-site at customer premises or in our Hexagon Geospatial office in Leuven, Belgium. We offer on-demand trainings for organizations that wish to train a group of customers using the Luciad Portfolio.

Remote Training

Hexagon Geospatial also offers its standard portfolio of classroom trainings in a remote learning format with a supported self-study approach. The typical daily cycle of this way of working is:

1. A web conference (1-2h) with one of our expert trainers who will explain a part of the training and provide you with materials.
2. Self-study of the training materials.

3. Hands-on exercises (e.g. you independently try to solve some coding exercises).

4. A review web conference with the trainer. You will look at the solutions to the exercises and can ask any questions you may have.

This training approach offers great flexibility in terms of learning pace for each participant and the amount of time and effort spent by each participant on the training.

Public Training

Public training events are held regularly and are open to participants from different organizations attending simultaneously. Public trainings are perfectly suited for cost-efficiently training just one or two people, without the need to order on-demand training.

Public trainings are held quarterly at Hexagon Geospatial's office in Leuven, Belgium. These events, which include multiple sessions, are a chance to visit us and meet other Luciad Portfolio users from all over the world.

When there is training interest from multiple organizations in a specific region, Hexagon Geospatial schedules public training events abroad, in all corners of the world. This provides an opportunity to attend a public training in your area.

Registration

Registering for a public training can be done in one of several ways, listed below. Any registration is completed upon payment of the invoice.

- Register online at https://www.hexagongeospatial.com/about-us/events. Public training events in our offices will be announced there well in advance.
- Contact your sales manager or our customer service team at customerservices.luciad.gsp@hexagon.com.
- Send a purchase order (PO) to customerservices.luciad.gsp@hexagon.com.

Training Agenda

Level: Beginner	
Type	Seminar with hands-on exercises.

Goal	This training is similar to the LuciadLightspeed Primary training but focuses exclusively on functionality that does *not* make use of LuciadLightspeed's GPU-accelerated capabilities. The goal is for participants to gain a thorough understanding of LuciadLightspeed concepts and be able to put this knowledge into practice to build high-performance geospatial situational awareness applications for systems that do not require OpenGL/OpenCL support.
Certificate	Certificate of participation in LuciadLightspeed 2D Graphics.
Target Audience	Software developers and software architects.
Prerequisites	As this is a hands-on development training, **basic operational Java knowledge is mandatory** for optimal training efficiency and knowledge transfer. This includes Java syntax, object-oriented principles, and specific terminology (e.g. inheritance, interfaces, abstract classes, inner classes). In addition, a basic knowledge of development using Java Swing (JFrame, JPanel, Container, JToolbar, ActionsListeners) is recommended. All development is done in a Java environment. It is therefore recommended that developers have experience with a Java IDE (e.g. IntelliJ, Eclipse).
Duration	3 days.
Agenda	The Luciad product trainer typically adapts the pace of the training to the needs of the trainees. The following is a standard agenda: **Day 1** • Brief introduction to the Luciad portfolio • LuciadLightspeed 2D demo • Setting up development environment • LuciadLightspeed basic concepts • Creating a 2D view • Decoding spatial data • Configuring raster and vector layers **Day 2** • Spatial data models in LuciadLightspeed • Data visualization • Adding support for custom data formats • Using LuciadLightspeed's domain model framework • Styling your data • Labeling **Day 3** • Adding user interaction • Selection on maps • Creating and editing objects on the map

	• Coordinate transformations • Filtering objects • Guidelines on obfuscation, logging, performance

2020 Public Trainings

Prerequisites

Disk space requirements

Hardware requirements:

Supported and Recommended	

Software requirements:

Operating system for Java based client (for example)

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's Geospatial division creates solutions that deliver a 5D smart digital reality with insight into what was, what is, what could be, what should be, and ultimately, what will be.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 4.3bn USD. Learn more at hexagon.com and follow us @HexagonAB.

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