

Forensic and Collision Investigation

Introduction to Laser Scanning with Real Time Application module

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This course has been created for Forensic Imaging Units, Collision Investigation Teams and Crime Scene Investigators who have purchased a laser scanner and want to go beyond simple capture, registration and production of 3D environments and 2D plans.

By the end of the Advanced Laser Imaging Academy course, the user will be able to scan efficiently, register datasets together, set up a dynamic presentation including assets, create animated paths and setup presentation views, take measurements confidently from within the data. The user will also be able to switch on and off assets using the time controller.

Quality Assurance and Risk Assessment processes are also included to ensure that products are correctly created for use in case conferences and court. The course has been designed by experienced professionals with over 7 years experience in delivering 3D laser scan measured information into UK courts and covers the complete process from capture to delivery through practical exercises and hand on training.

DAY ONE

Course Introduction

- Introduction to ALI
- Introduction to Presenter
- What is Laser Scanning / How does it work
- Uses / Limitations

Laser Scan Capture

- Mock Scene
- Assess the scene
- Scan Location Considerations
 - What do I need to capture
 - What would my ideal setup locations be?
- Safety Considerations
 - For You
 - For the Equipment
 - For other Police Investigators
 - For the Public
- Pointcloud coverage (covering shadows)
- Distance/Angle to critical elements
- Registration Thoughts
 - Targets? Cloud to Cloud? Natural Points of Detail
- Resolution / Time / No. of Setups Triangle (more setups vs less)
 - Capturing all you need (Tyre marks etc. - tips and tricks)
- Scanner Settings

LUNCH

Data Handling / Processing

- Notes on Storage / Capture Media
- Creating an initial RAW Evidential Copy

Registration Software

- Setting up a new project
- Importing data
- Registration
- Cleaning
- Export

DAY TWO

Day One (capture and overall workflow) Recap

Registration Quality Assurance Checks

Discussion around Precision, Accuracy & Resolution
Checking your tolerances

Real Time Data Visualisation Basic

- Overview of software capability and uses
- Interface and overlay settings
- Geodesic Basics Theory
- Importing and Placing Data
- Navigation

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Data Manipulation Basic

- Clipping Pointcloud data
- Editing Points
- Exporting Data and Projects
- Adding Mapping from local server

DAY THREE

Day Two (registration and Visualisation workflow) Recap

Advanced Planning Tool

- Adding assets to the scene
- Creating a path
 - Edit Path
 - Dynamic review of the path
- Taking measurements
 - Point to point
 - Angles
 - Plumblines
 - Pin
- Adding Notes and Hyperlinks
- Creating fixed view points
- Creating animations

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Presentation Tools and summary

- Post Production Techniques
- Creating a fixed presentation
- Adding Time Control to your presentation
- Summary

Course Round Up

END