

# Autodesk ReCap Pro Essentials

## Target Audience

This course is designed for surveyors, civil engineers, architects, BIM professionals, construction managers, GIS specialists, reality capture technicians, and infrastructure professionals who work with laser scanning and photogrammetry data. It is ideal for individuals seeking to develop practical skills in Autodesk ReCap Pro for processing point clouds, creating meshes, performing measurements, and preparing reality capture data for design, engineering, and construction workflows.

## Course Objective

This course aims to provide learners with a comprehensive understanding of Autodesk ReCap Pro and its reality capture capabilities. Participants will learn how to create and manage projects, import and register scan data, organize and edit point clouds, generate meshes, perform measurements and annotations, export project deliverables, and utilize ReCap Photo for photogrammetry-based modeling. The course emphasizes practical workflows that support surveying, documentation, BIM, and infrastructure projects.

## Course Outcome

Upon completion of this course, learners will be able to confidently create and manage ReCap projects, process and optimize point cloud datasets, generate mesh models from scan data, perform accurate measurements and annotations, and export project deliverables in industry-standard formats. Participants will also gain the skills required to utilize ReCap Photo for converting photographs into 3D models, enabling them to support reality capture, BIM, renovation, construction, and asset documentation projects with greater accuracy and efficiency.

**Course Outline:** The course comprises 32 hours of theory and practical labs and is divided into 5 comprehensive chapters. Each chapter will be followed by hands-on lab exercises to reinforce learning and gauge understanding of the topics covered.

## Chapter No 1: Getting Started in ReCap

### Introduction to ReCap Pro

- Overview of Recap
- Mouse-Related Navigation
- View Cube Navigation

### User Interface

- Background Color



- View States
- Limit Box
- RealView

### **Working with Projects**

- Project Preferences
- Creating a New Project
- Importing Scan Files
- Registering/Indexing Scan Files
- Saving a Project
- Opening a Project

## **Chapter No 2: Editing, Organizing, and Exporting Point Clouds**

### **Editing and Organizing Point Clouds**

- Selecting Points
- Create and Use Scan Regions
- Classification of Selected Points
- Automatic Ground Classification
- Clipping Inside or Outside a Point Selection
- Decimate Points
- Delete or Clear Points

### **Scan to Mesh**

- Processing Scan to Mesh
- The Mesh Editor
- Classifying Mesh Layers
- Export a Mesh

## **Chapter No 3: Measurement and Labeling**

### **Measurements**

- Annotating Distance Measurements
- Annotating Angle Measurements

### **Labeling**

- Note Annotations
- Controlling Annotations

## **Chapter No 4: Saving & Exporting Your Project**

Exporting e57 Files with Panorama Images

Export Images and Video

Exporting a RealView Image

Cache RealView

E57 Export Support - Technical Specification

## **Chapter No 5: ReCap Photo**

### **Starting a Project**

- Create Project

### **Photo to Mesh Manipulation and Review**

- Model Settings
- Editing Tools - Surface Tools
- Editing Tools - Extrude Mesh
- Re-topologize Tools
- Analyze Tools
- Project Options
- Navigation & Visualisation Tools
- Export Tools