

HD MAPS MOBILE MAPPING AND MODELLING

DR DEJAN VASIĆ



AGENDA

ABOUT US

- WHO WE ARE
- WHAT WE OFFER

MOBILE MAPPING DATA POINT CLOUD DATA PROCESSING

- INITIAL DATA PROCESSING
- POINT CLOUD RUN
MATCHING
- POINT CLOUD
CLASSIFICATION
- FEATURE EXTRACTION

MOBILE MAPPING PROJECTS PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS
- CLEARANCE
MEASUREMENTS
- HD MAPS
- VISUALISATION

SOMETHING ABOUT US



WHO WE ARE

OUR MISSION

DataDEV is founded as a private-owned company located in Europe, Germany and Serbia. The company team is composed of experts from various technical and programming fields.

Our mission is to develop disruptive Artificial Intelligence (AI) mapping technology for (near) real-time HD-map generation. Our goal is to be regional technology leader.

GROW YOUR BUSINESS WITH US.



WHAT WE OFFER

MOBILE MAPPING

3D CAD AND BIM MODELS

HAD MAPS

IMAGE BLURRING



MOBILE MAPPING

Mobile laser scanning is an emerging technology capable of capturing three dimensional data from surrounding objects. With state-of-the-art sensors, the achieved point clouds capture object details with good accuracy and precision.



3D CAD AND BIM MODELS

Our highly skilled technicians have vast experience in the manipulation and conversion of a point cloud data into CAD or BIM products.



HAD MAPS

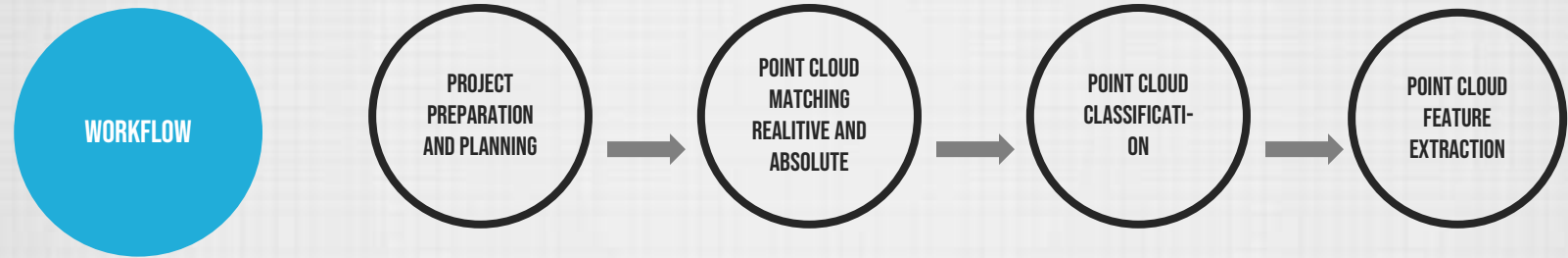
DataDEV works on creation of the digital platforms for driving simulation using real time spatial information that have been made within Mobile Mapping System.



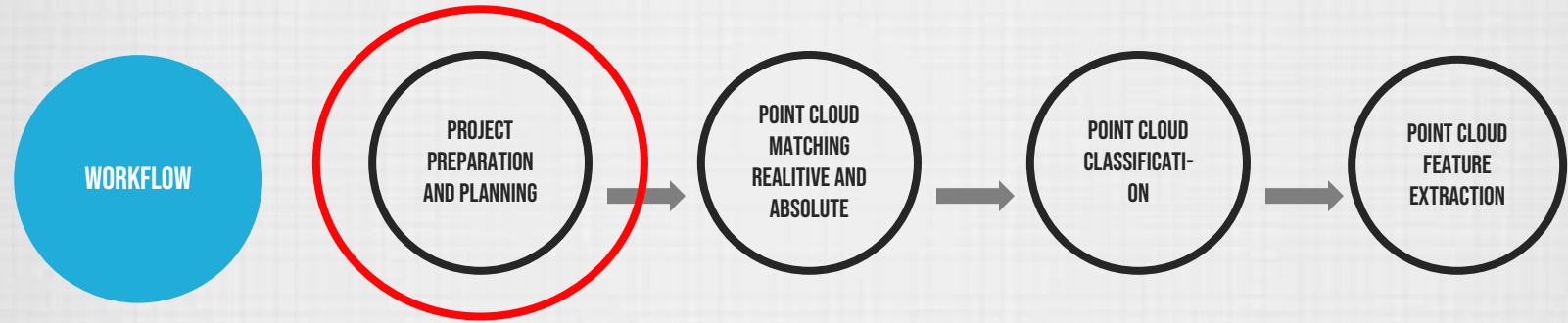
IMAGE BLURRING

DataDEV offers reliable methodology and fully automated procedures for blurring of faces and license plates. The blurring of faces and license plates is required in order to comply privacy laws.

MOBILE MAPPING DATA PROCESSING PROCEDURES



MOBILE MAPPING DATA PROCESSING PROCEDURES



MOBILE MAPPING SYSTEMS



TRIMBLE MX9



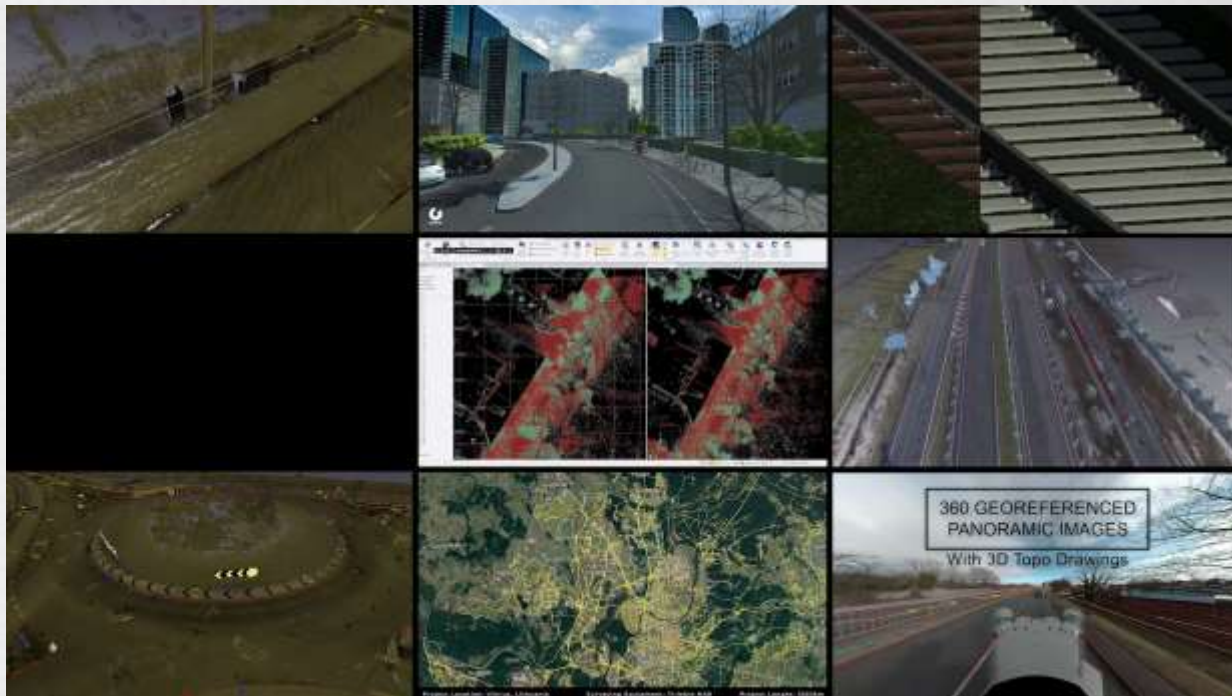
RIEGL VMX 250



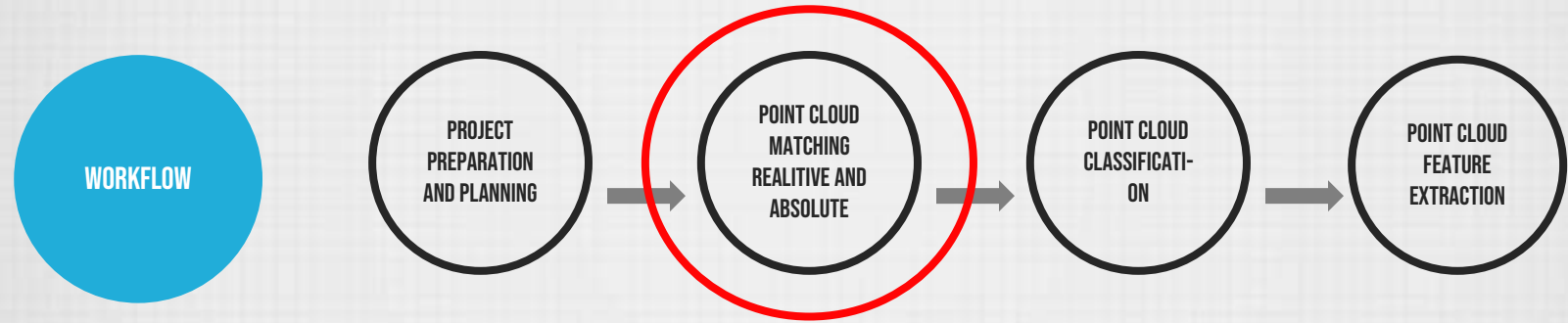
THE LEICA PEGASUS

PROJECT PREPARATION AND PLANING

- POINT CLOUD INITIAL PROCESSING
 - GNSS CORECTION - POSPAC
 - TRAJECTORY PROCESSING
 - POINT CLOUD COLOURISATION
 - POINT CLOUD EXPORT

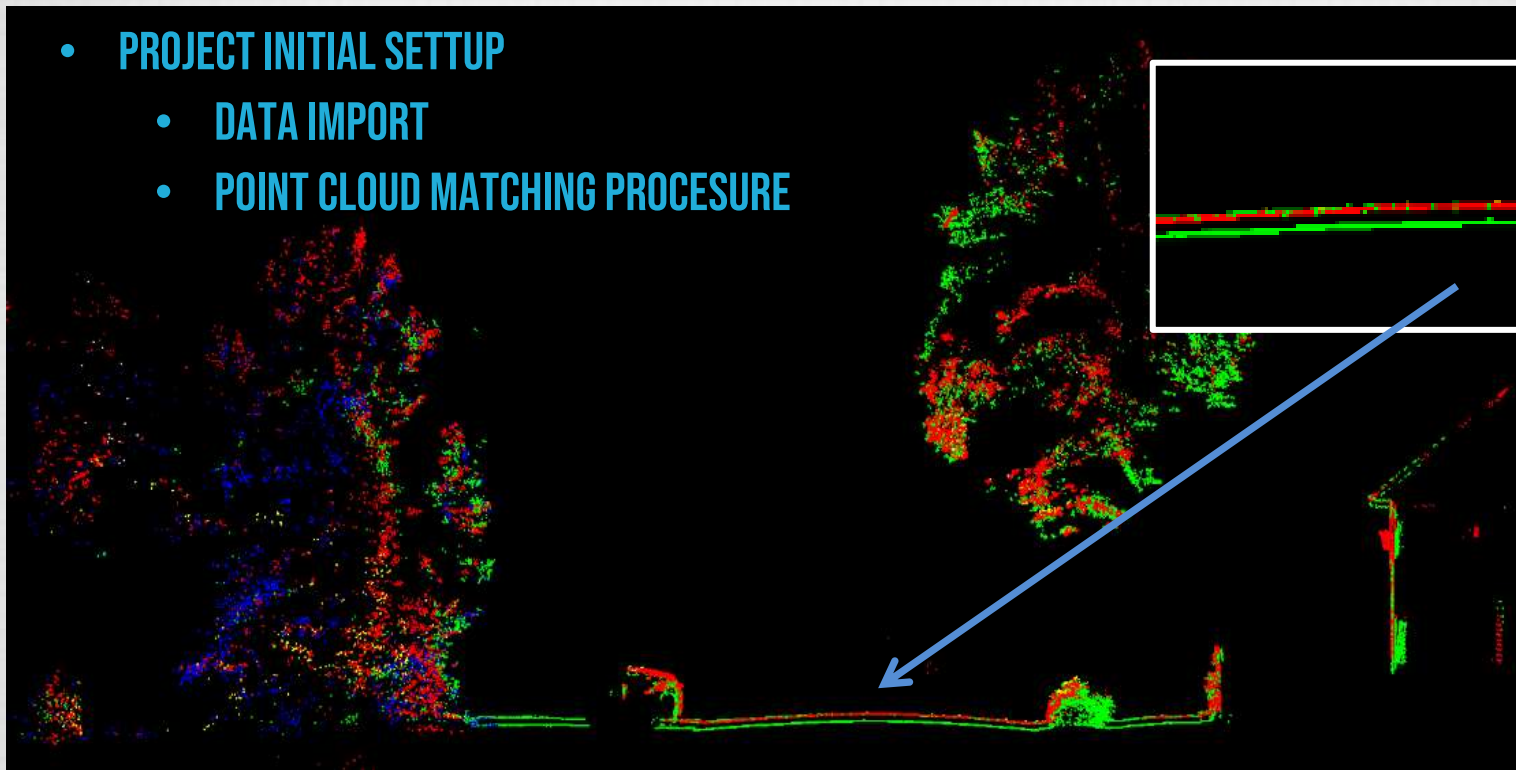


MOBILE MAPPING DATA PROCESSING PROCEDURES

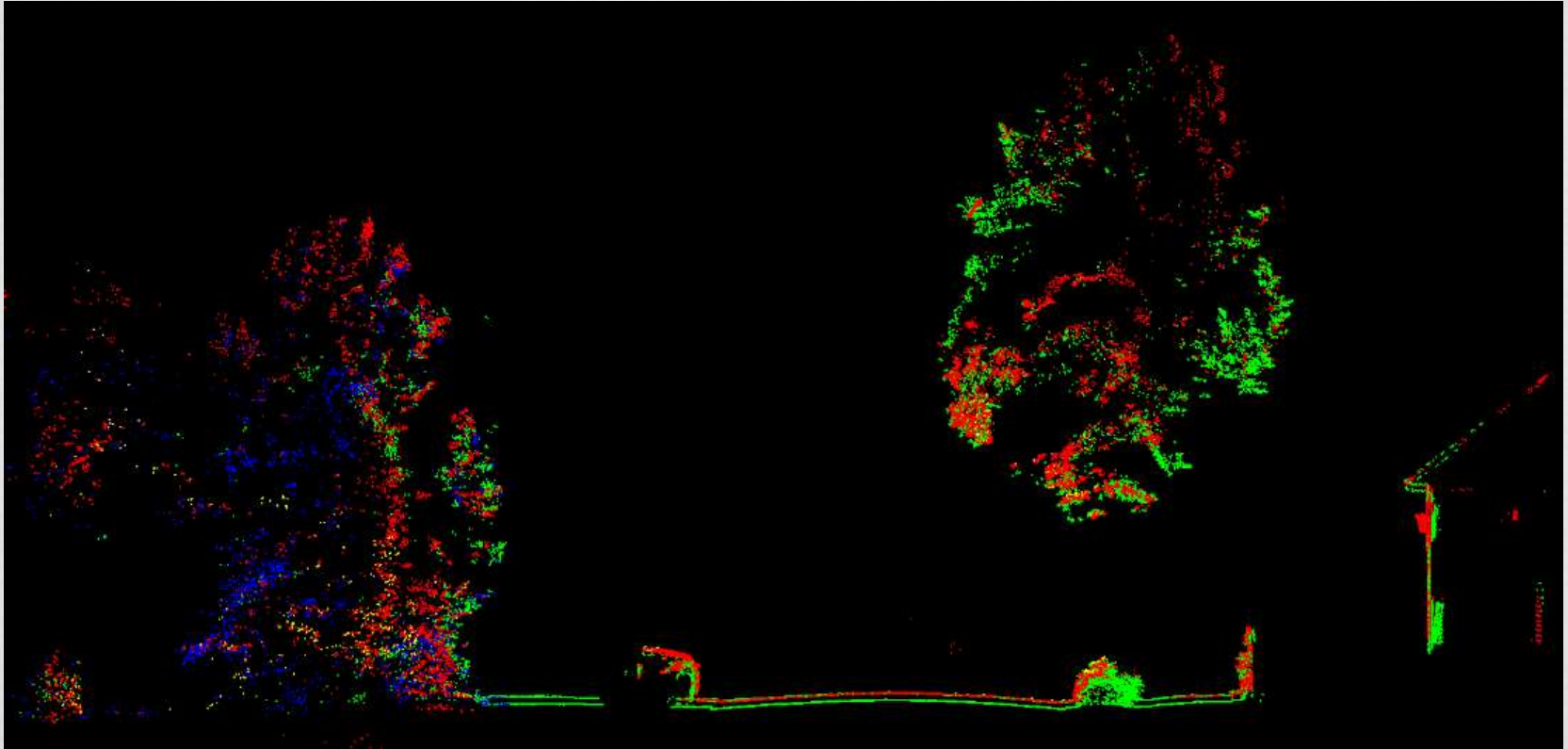


POINT CLOUD MATCHING - REALTIVE AND ABSOLUTE

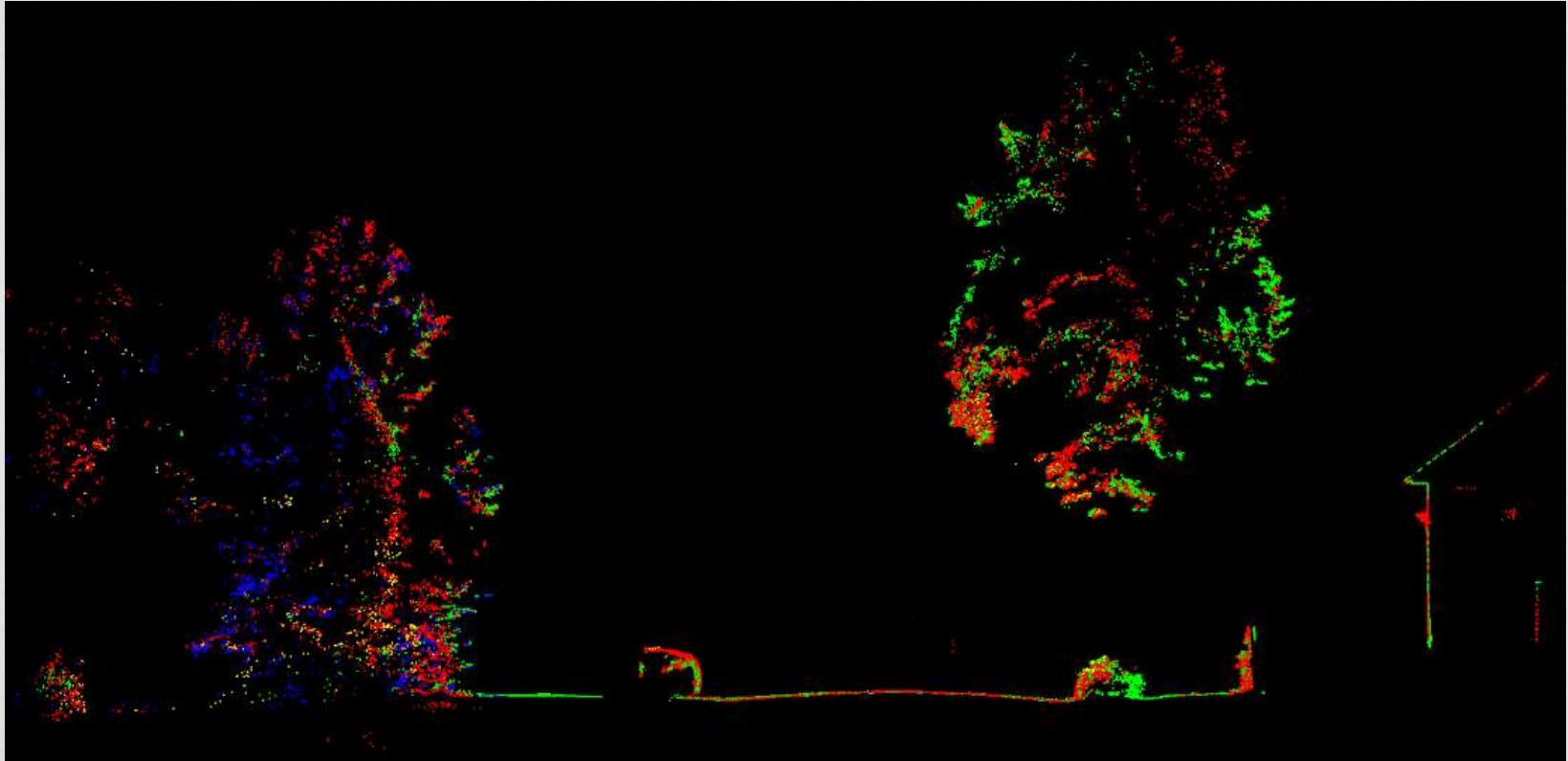
- PROJECT INITIAL SETUP
 - DATA IMPORT
 - POINT CLOUD MATCHING PROCEDURE



POINT CLOUD MATCHING - REALTIVE AND ABSOLUTE

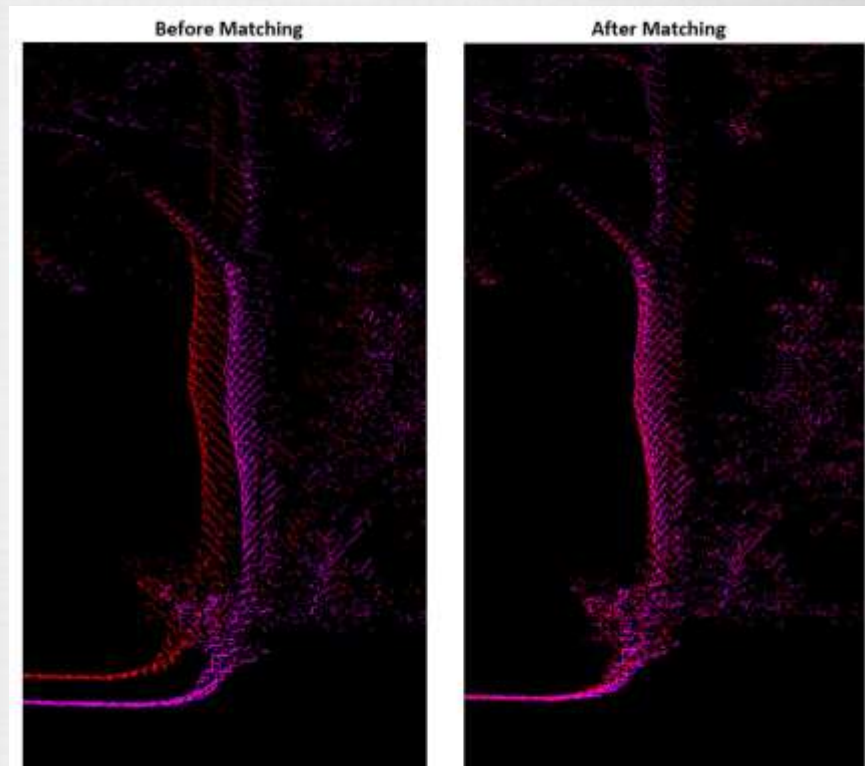


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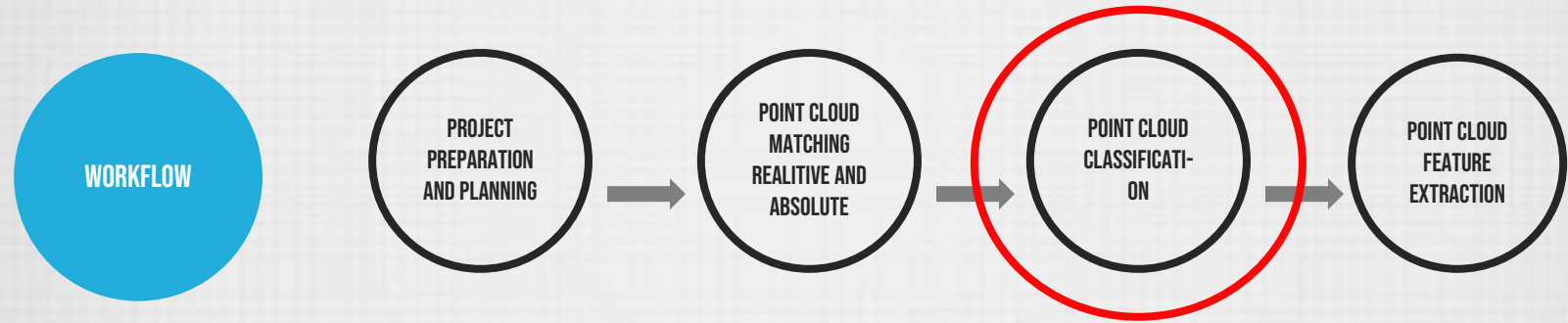


POINT CLOUD MATCHING - REALTIVE AND ABSOLUTE

- POINT CLOUD AND IMAGERY MATCHING
- CONTROL POINTS
- KNOWN PROBLEMS
- COMERCIAL SOFTWARES
- MANUAL PROCEDURES
- AUTOMATIC PROCEDURES

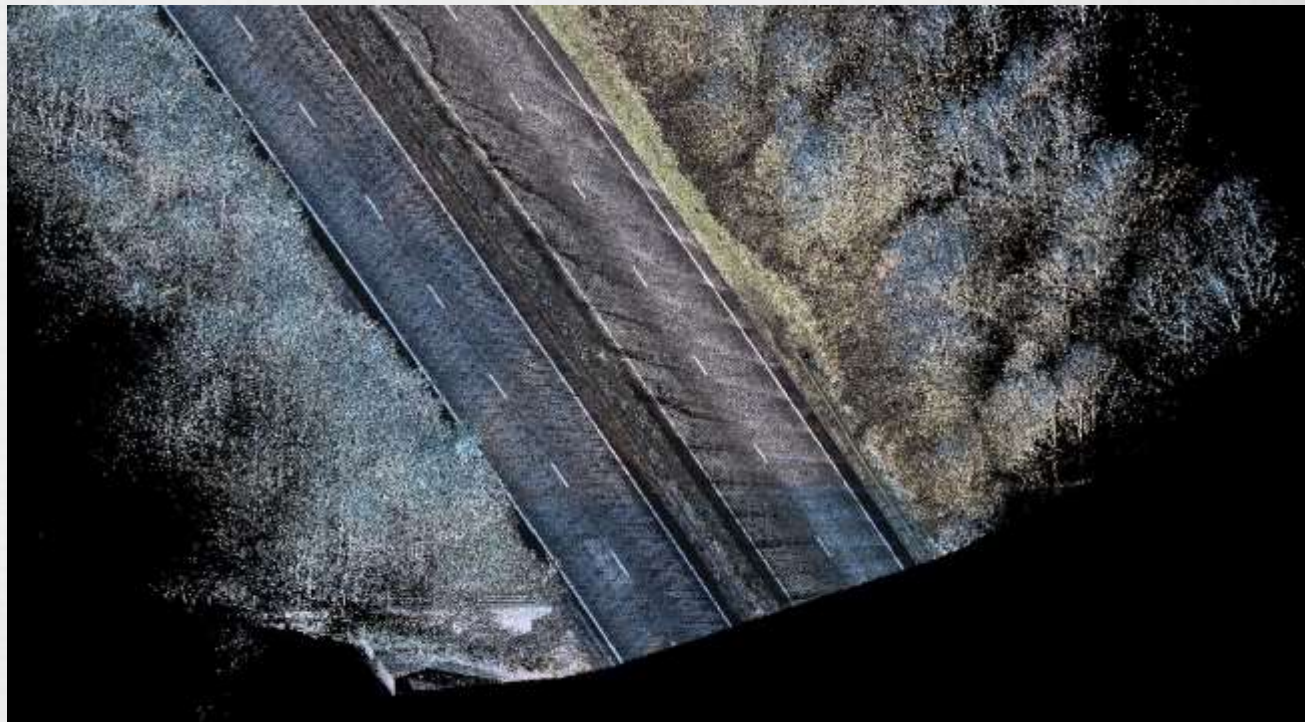


MOBILE MAPPING DATA PROCESSING PROCEDURES



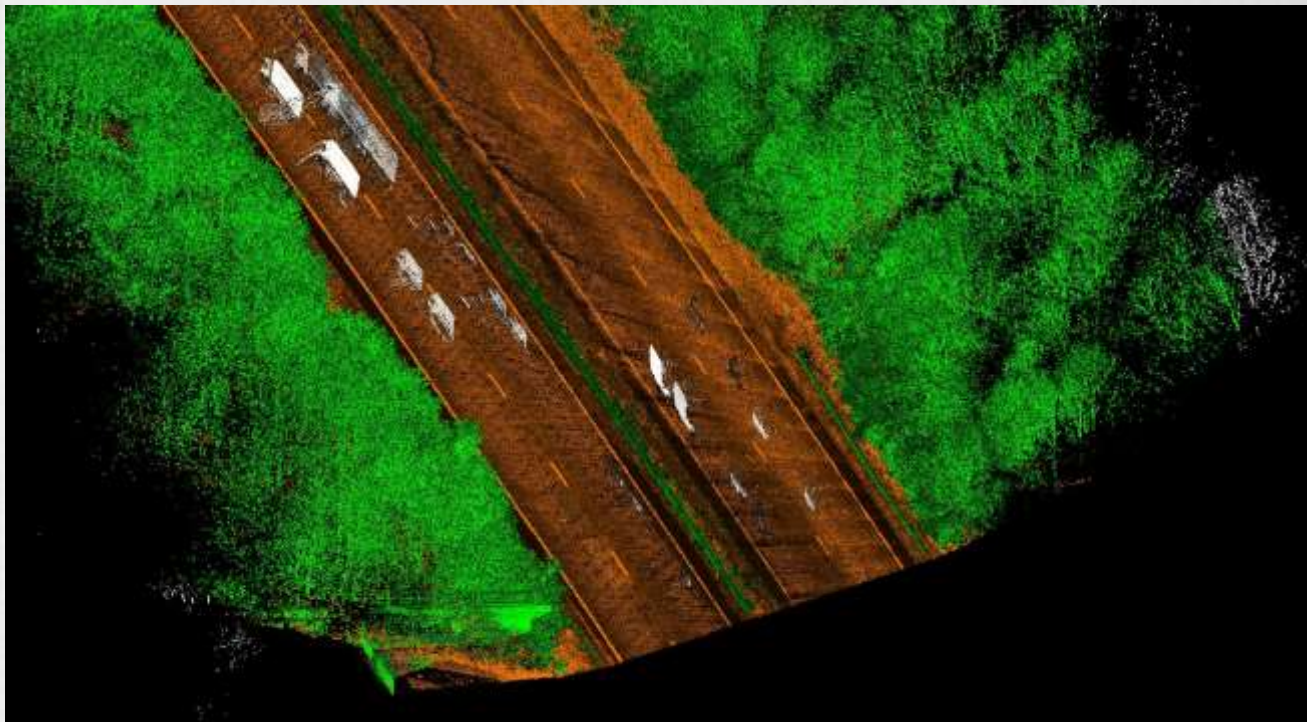
POINT CLOUD CLASSIFICATION

- POINT CLOUD CLASSIFICATION
 - DIFFERENT APPROACHES



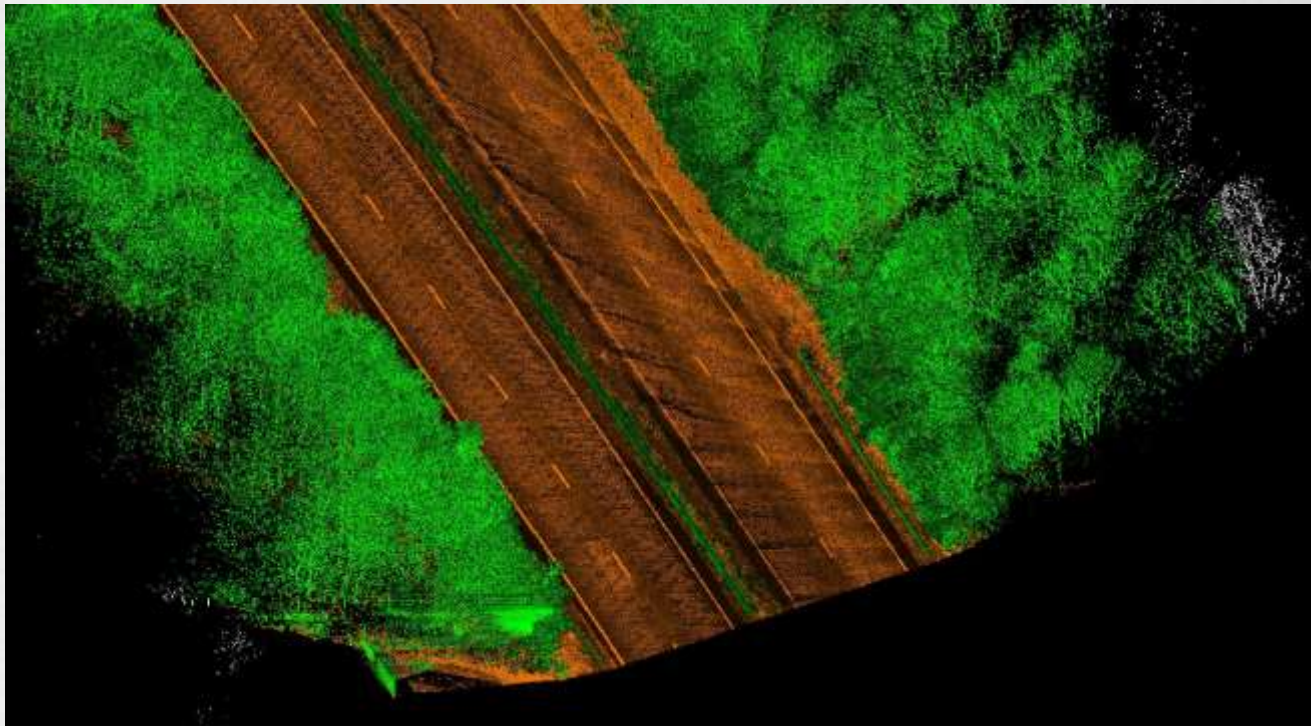
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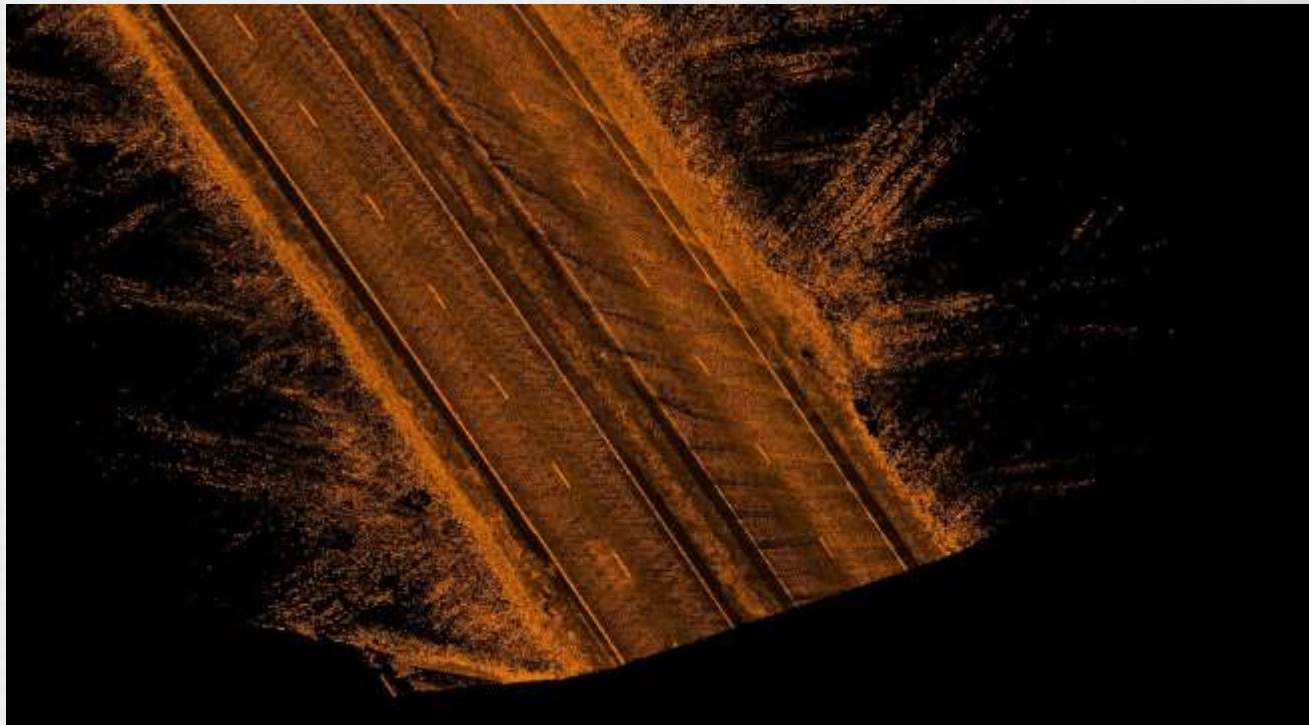
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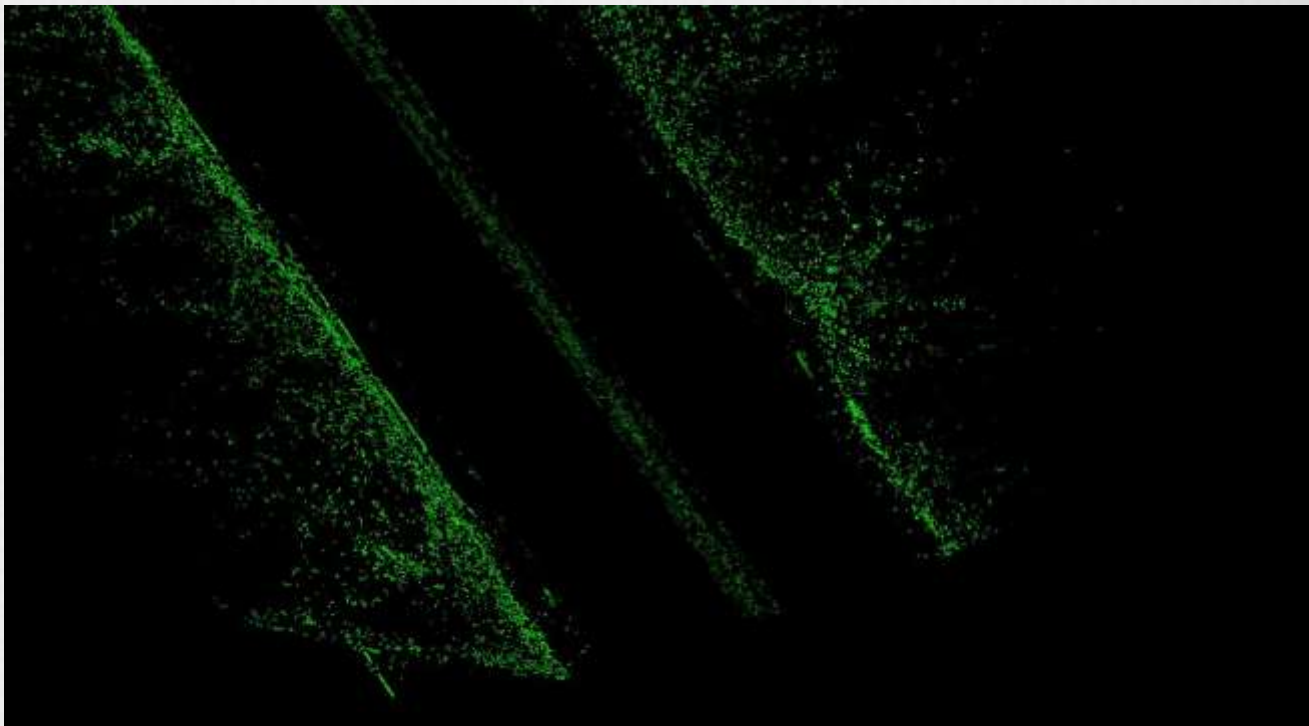
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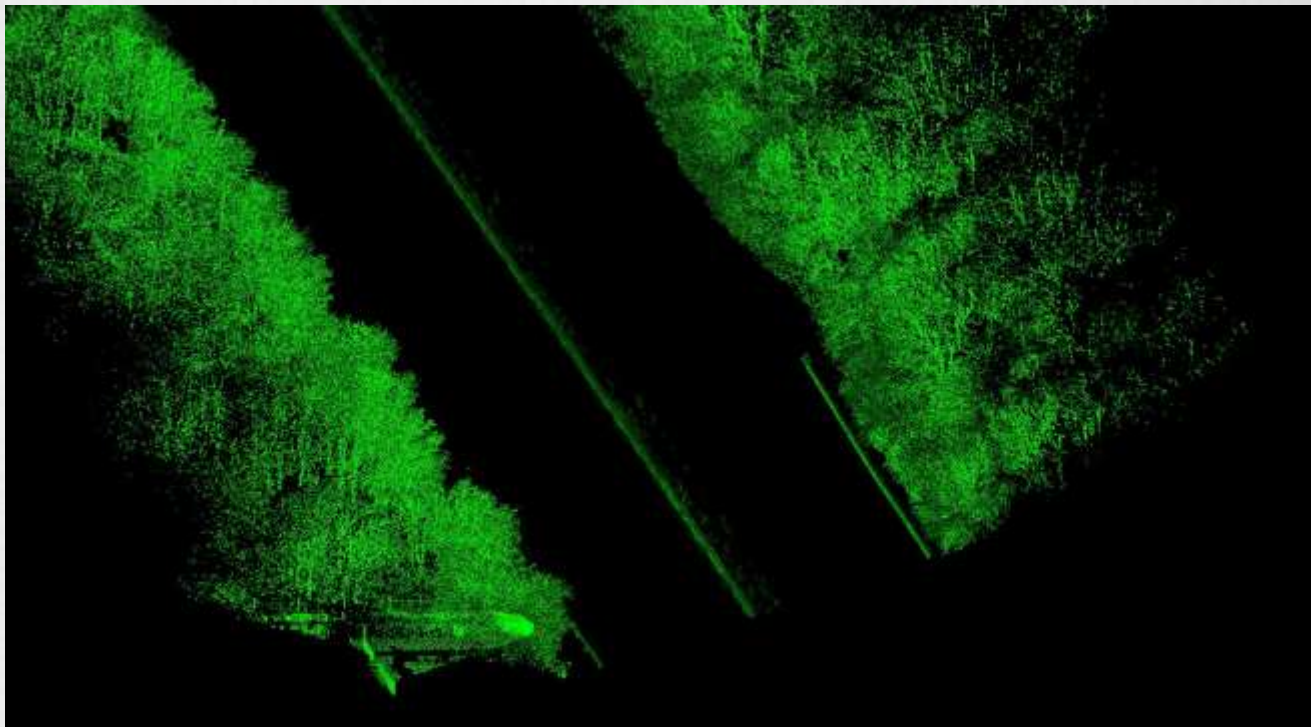
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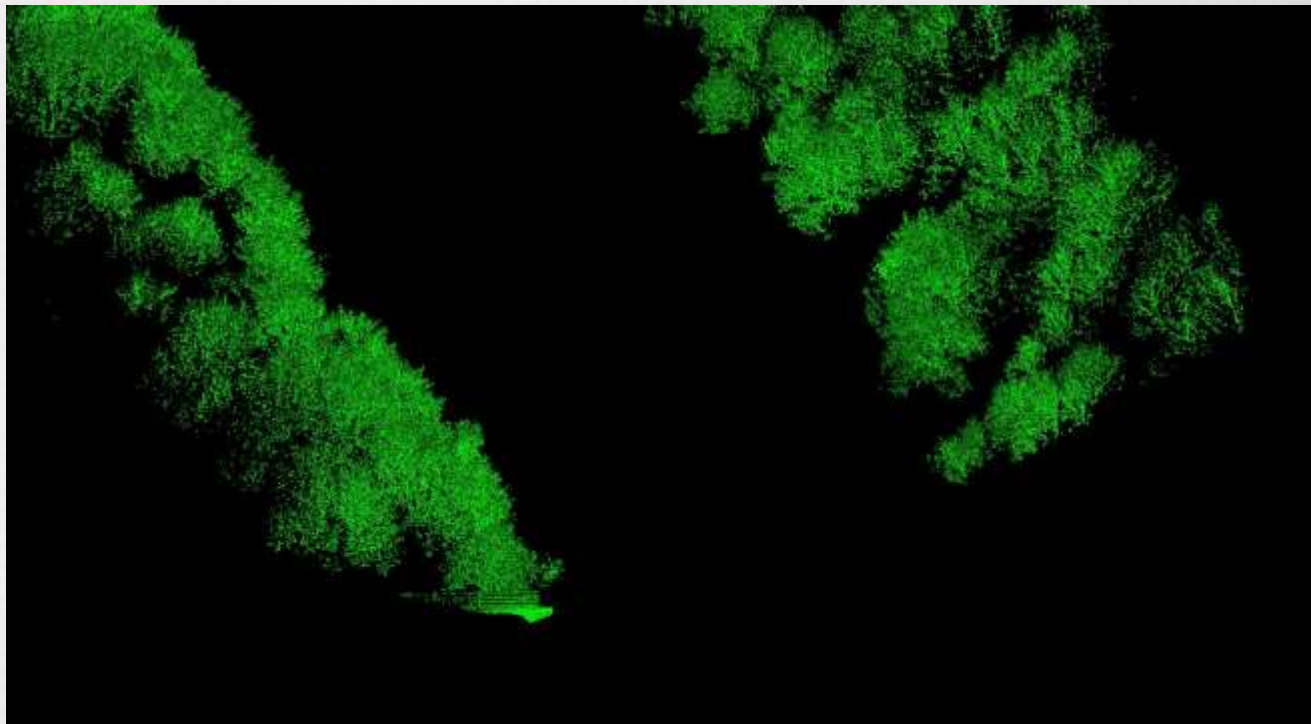
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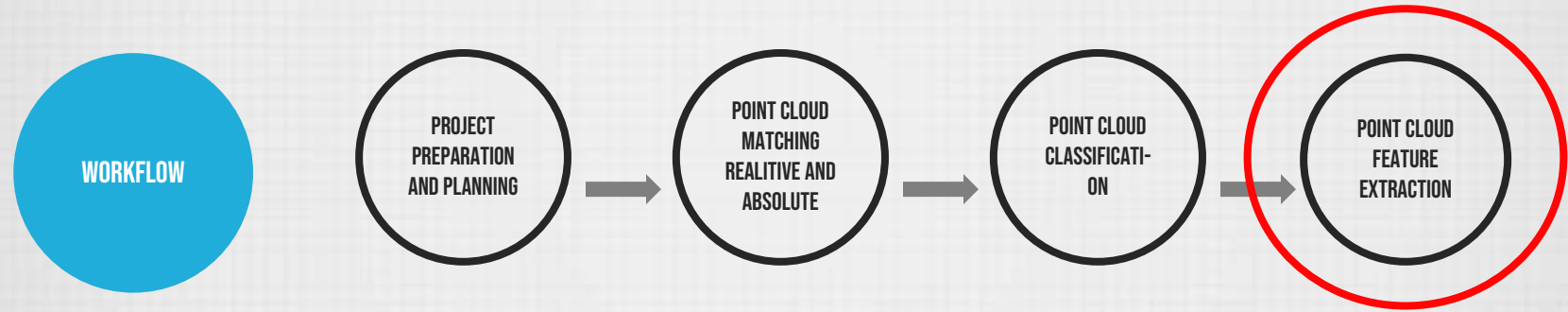


POINT CLOUD CLASSIFICATION

- POINT CLOUD CLASSIFICATION
 - DIFFERENT APPROACHES



MOBILE MAPPING DATA PROCESSING PROCEDURES



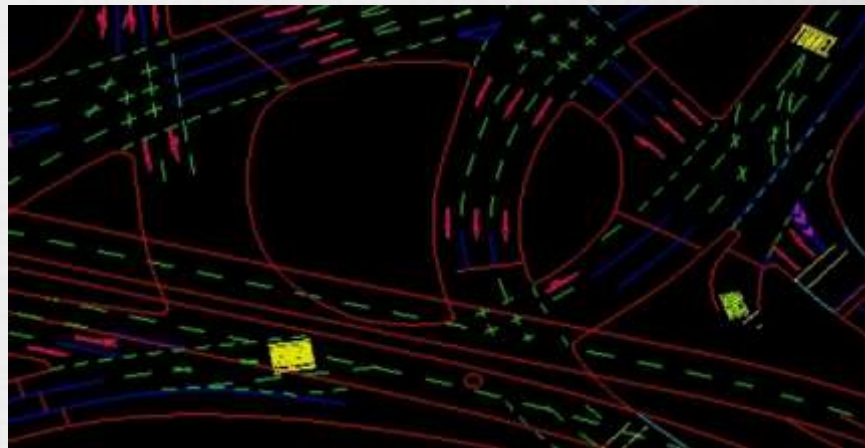
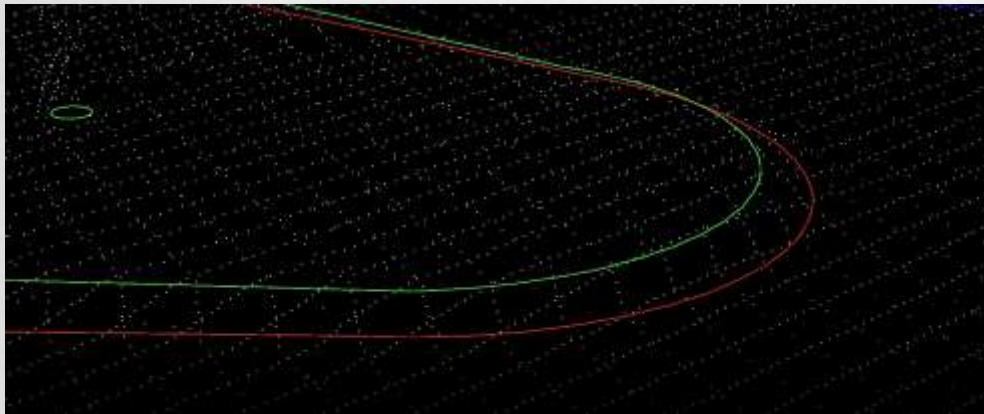
POINT CLOUD FEATURE EXTRACTION

- STREET MARKINGS EXTRACTION



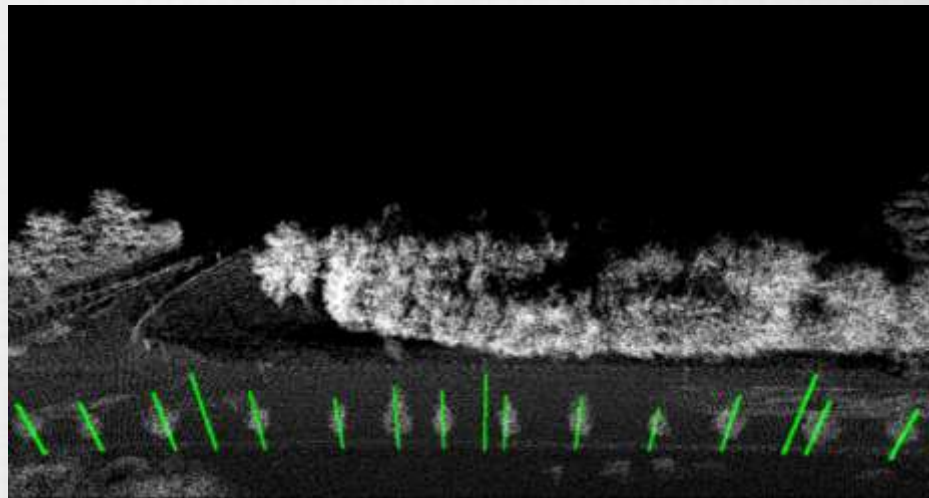
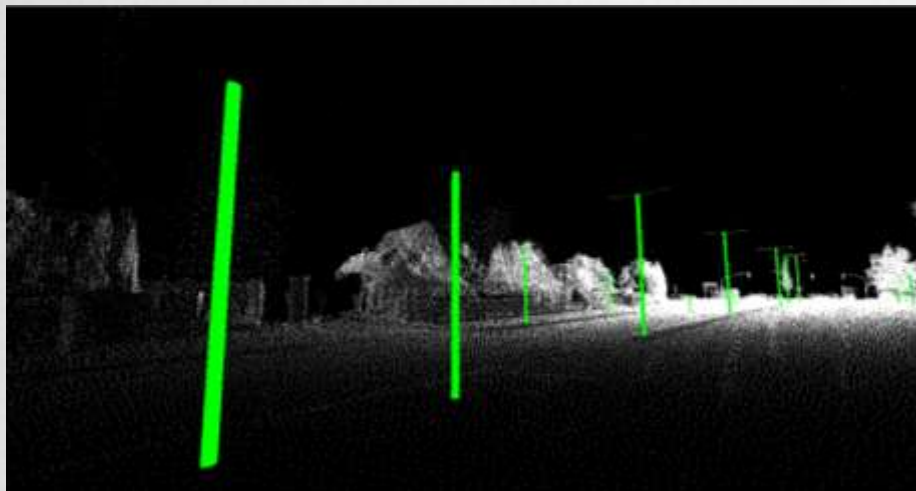
POINT CLOUD FEATURE EXTRACTION

- CURBS AND EDGE OF ROAD



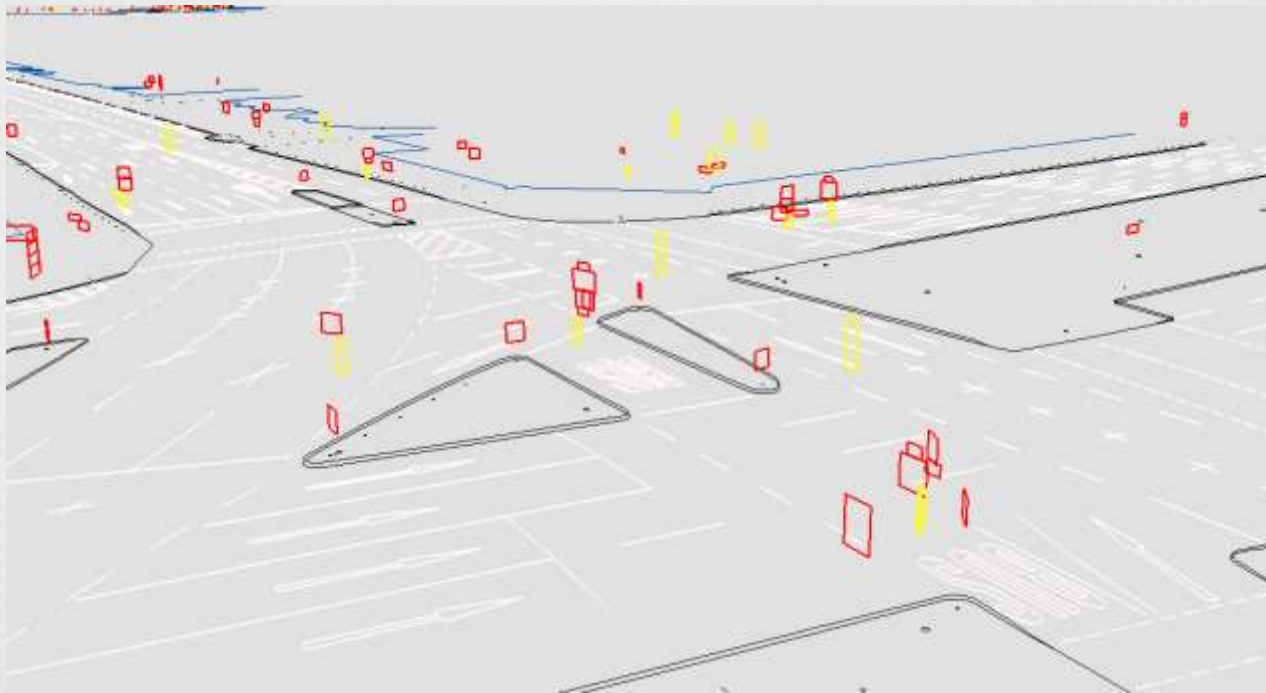
POINT CLOUD FEATURE EXTRACTION

- STREET LIGHTINGS AND PILARS



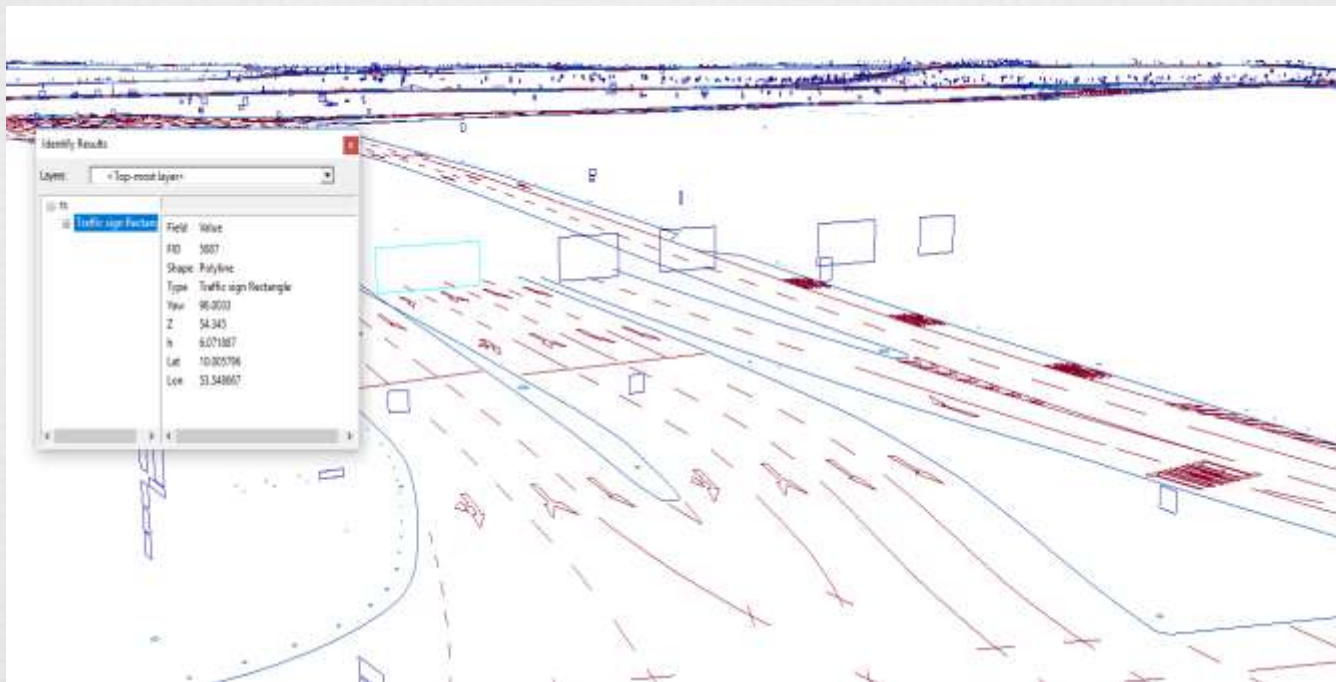
POINT CLOUD FEATURE EXTRACTION

- TRAFFIC SIGNS AND TRAFFIC LIGHTS



POINT CLOUD FEATURE EXTRACTION

- TRAFFIC SIGNS AND TRAFFIC LIGHTS



POINT CLOUD FEATURE EXTRACTION



POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

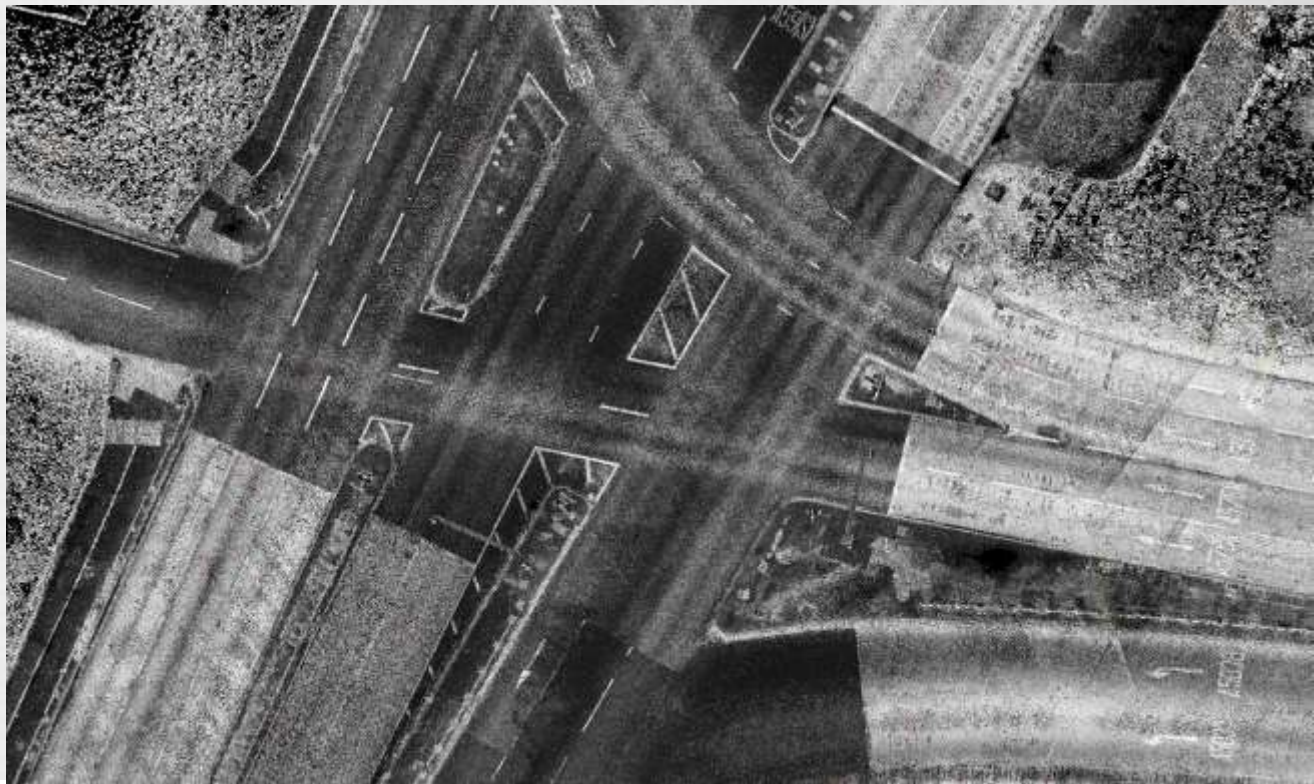
- TOPOGRAPHIC MAPS
- CLEARANCE MEASUREMENT
- HD MAPS
- VISUALIZATION

POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS
- CLEARANCE MEASUREMENT
- HD MAPS
- VISUALIZATION

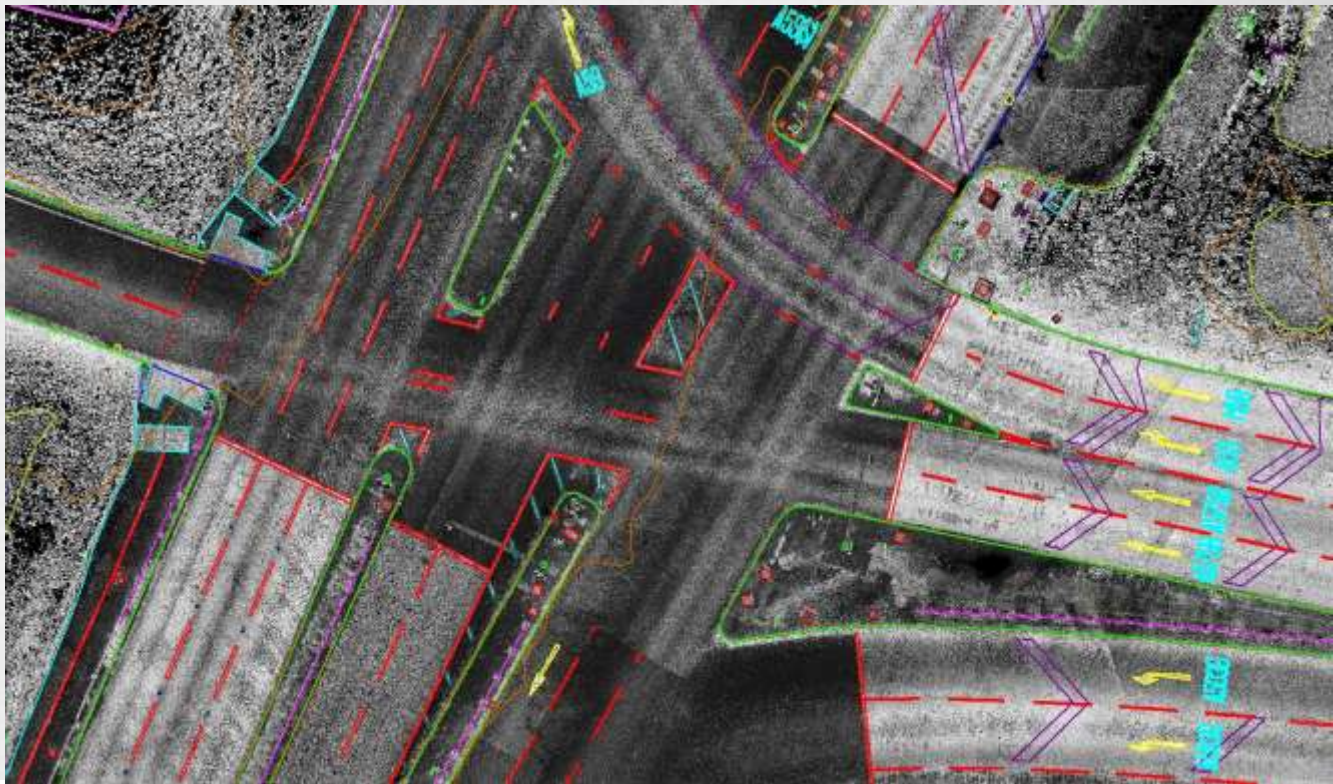
POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS



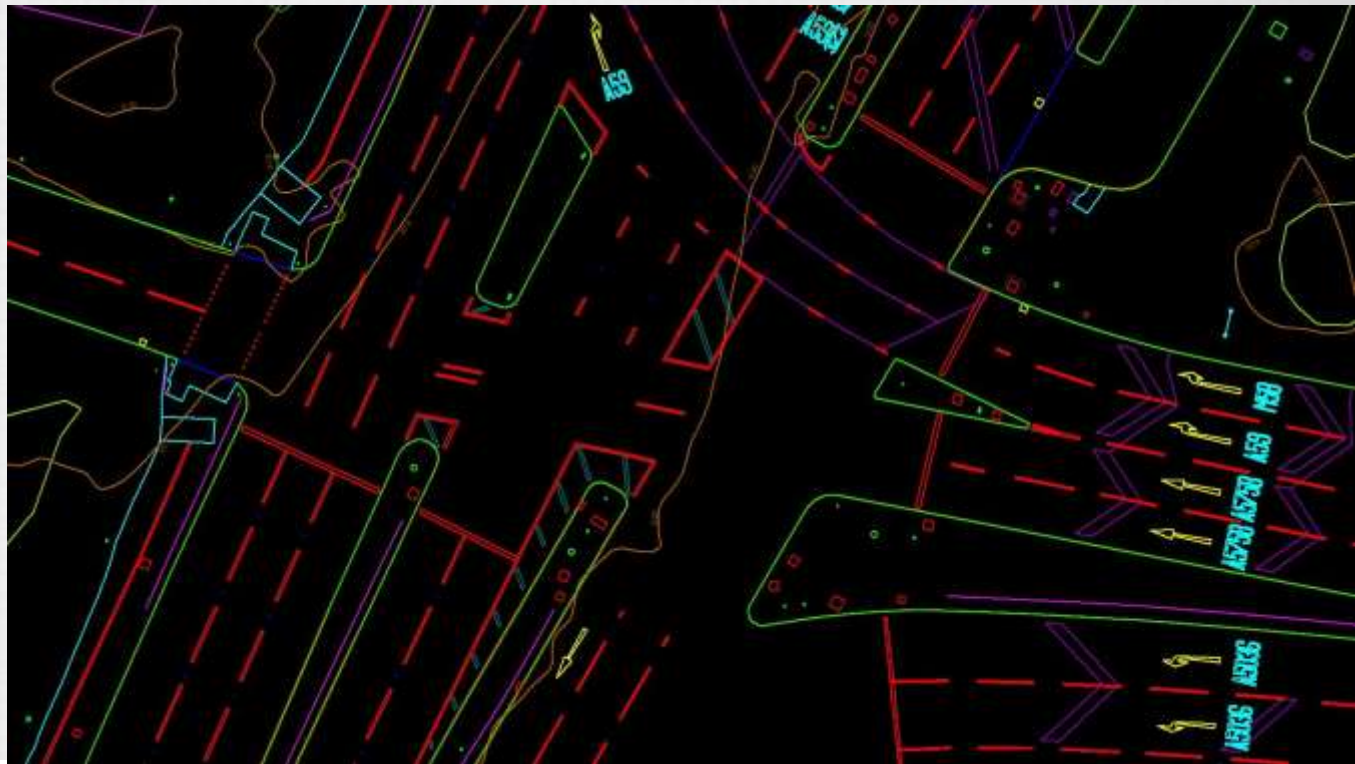
POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS



POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS



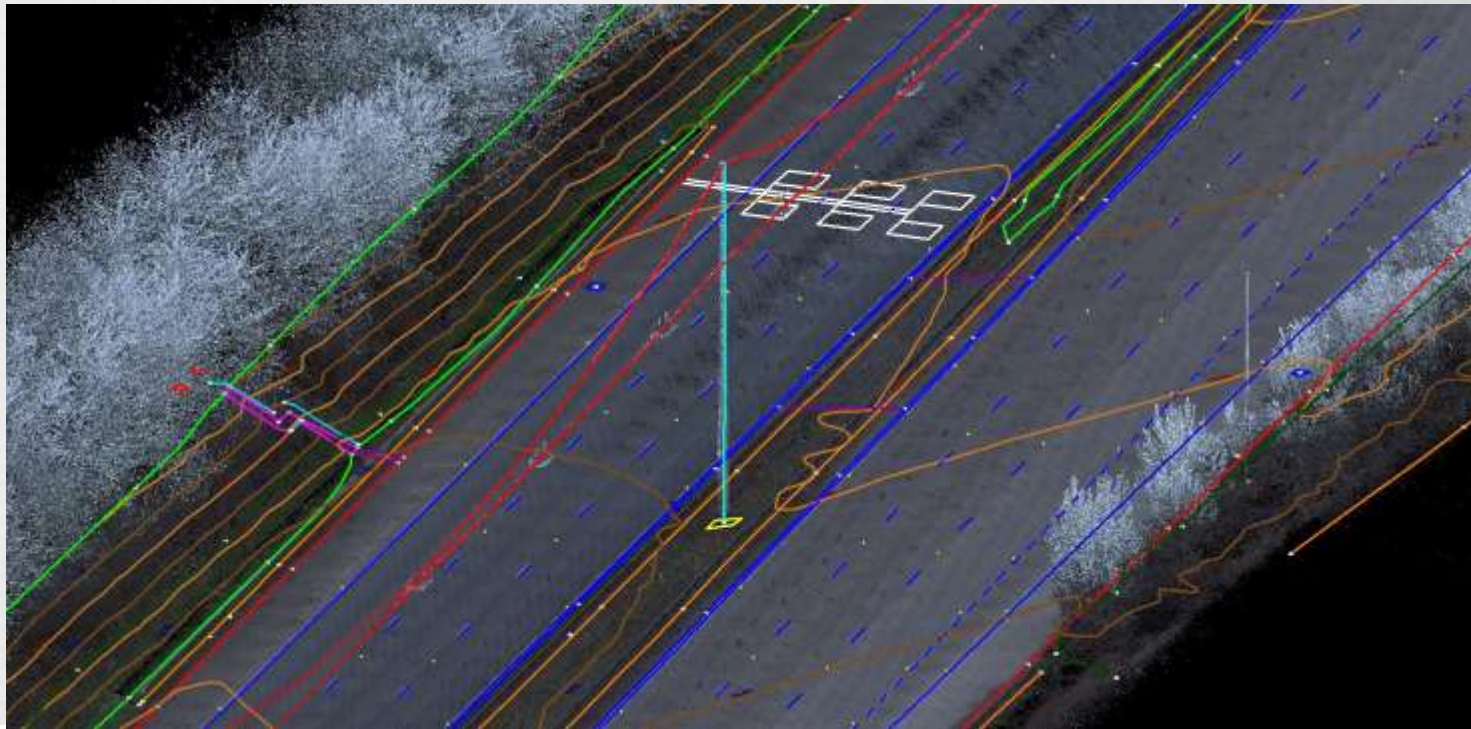
POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS



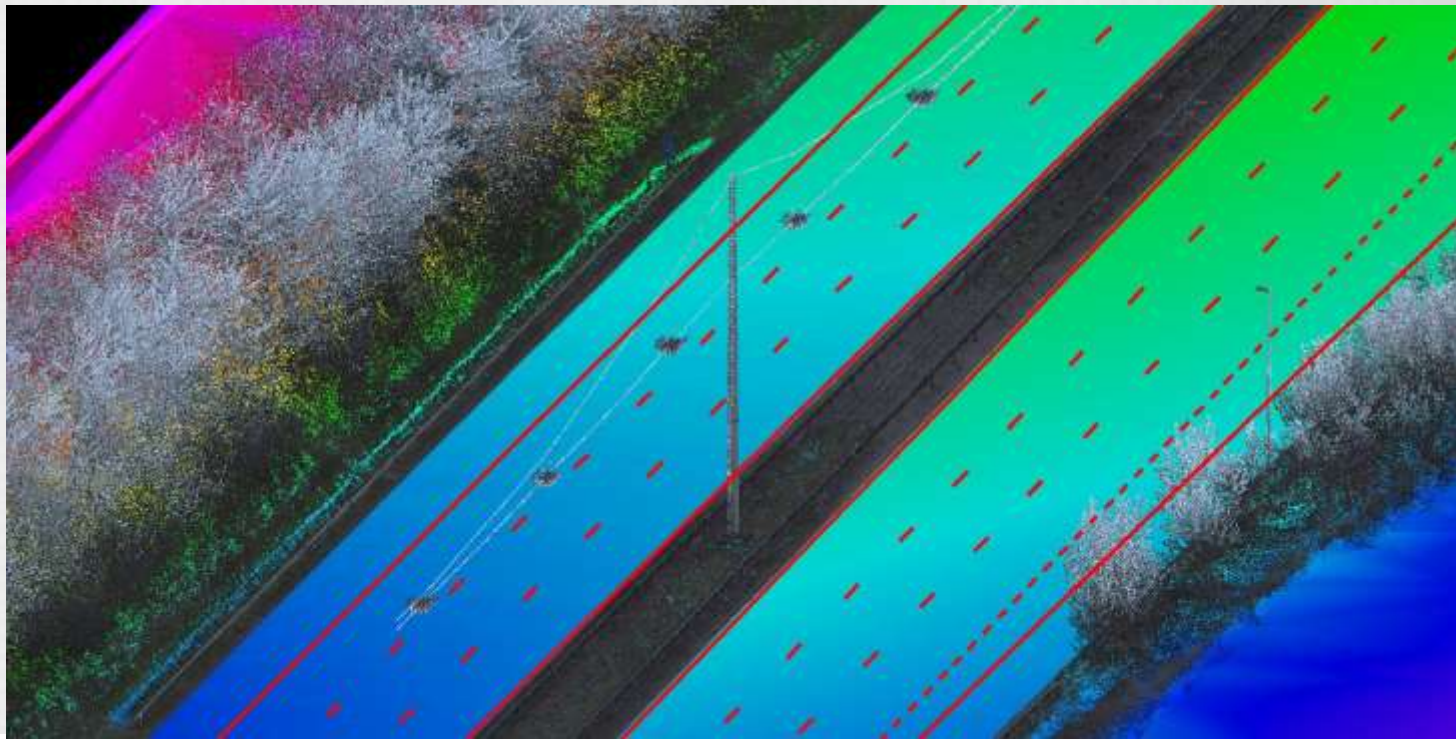
POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS



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- TOPOGRAPHIC MAPS



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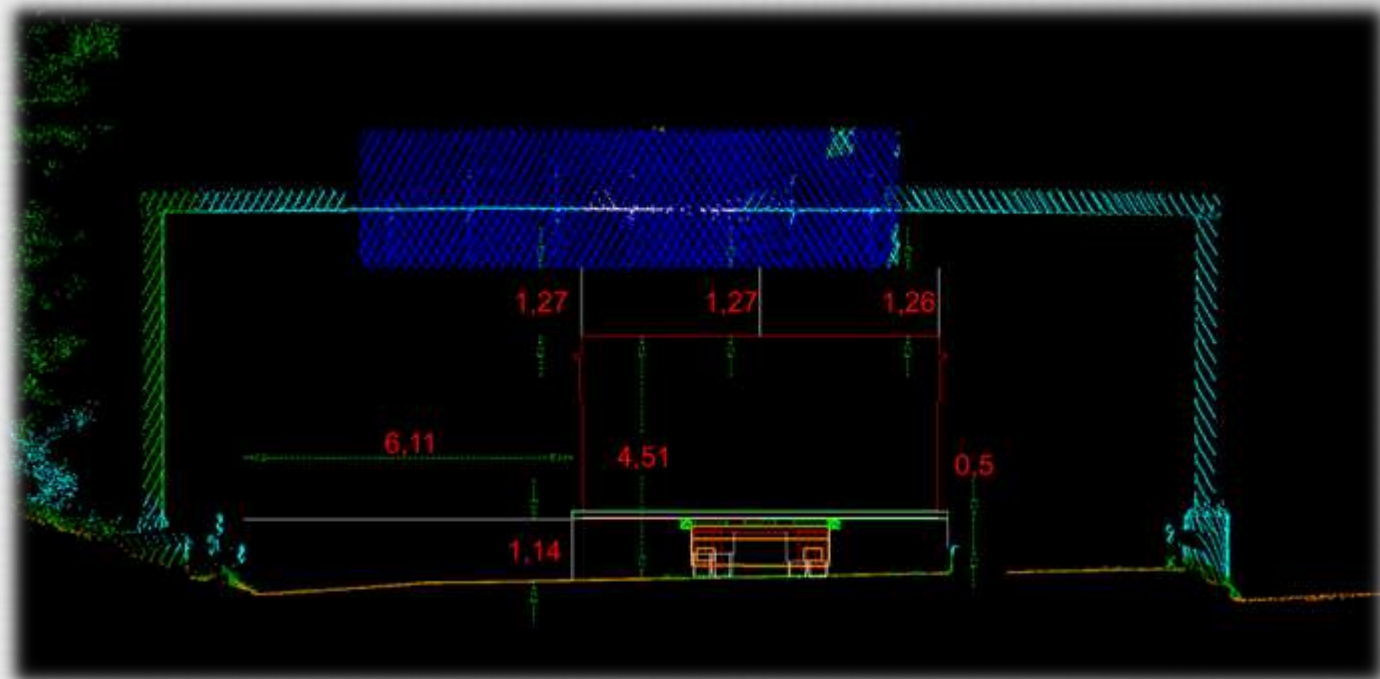
- TOPOGRAPHIC MAPS
- CLEARANCE MEASUREMENT
- HD MAPS
- VISUALIZATION

POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- **CLEARANCE MEASUREMENT**
 - RISK ASSESMENT IN THE TRANSPORT OF OBJECTS OF LARGE DIMENSIONS
 - DATA PROCESSING - LABEL CLEARANCE TOOL POLYGON REPRESENTING EDGE OF ROAD SURFACE AUTOMATICAL DETECTION OF CRITICAL PLACES WHERE VEHICLE COINCIDENCES WITH TUNNEL OR OVERPASS POINTS TRANSFERED TO PREDEFINED COINCIDENCE CLASS

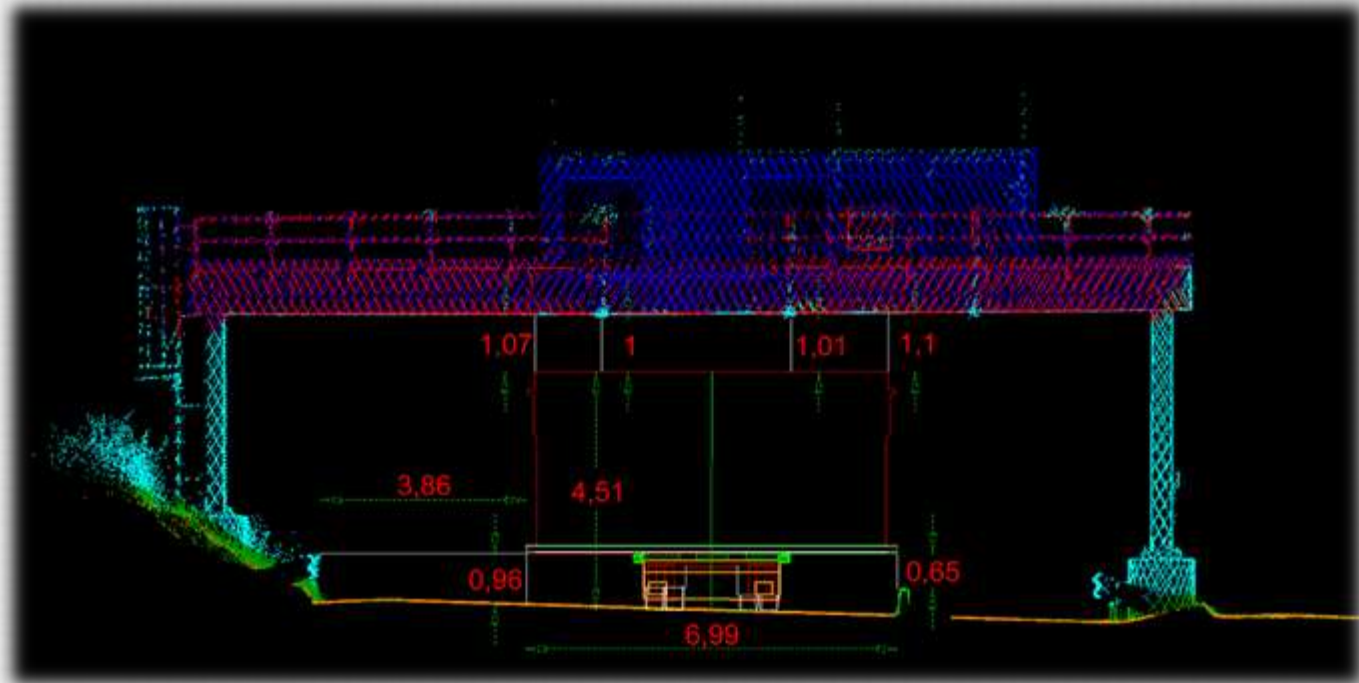
POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- CLEARANCE MEASUREMENT



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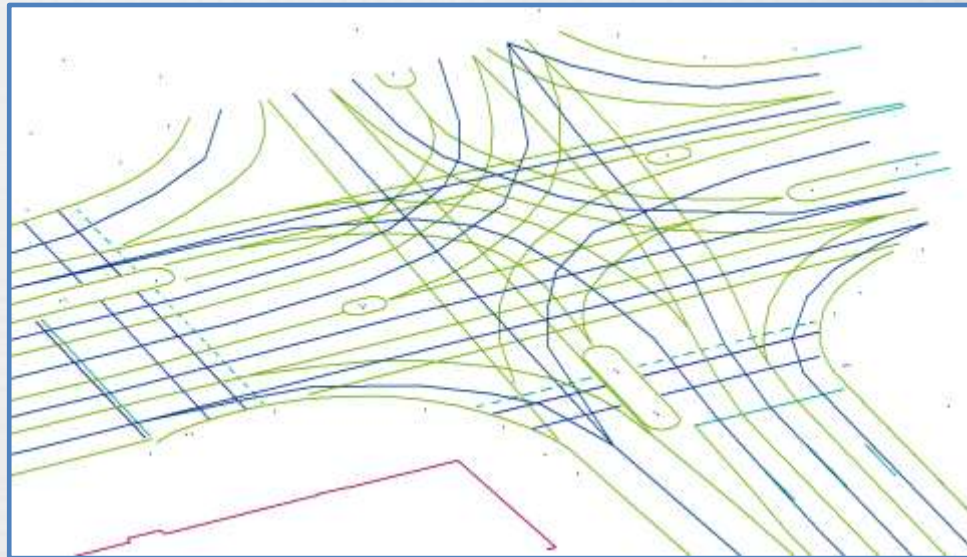
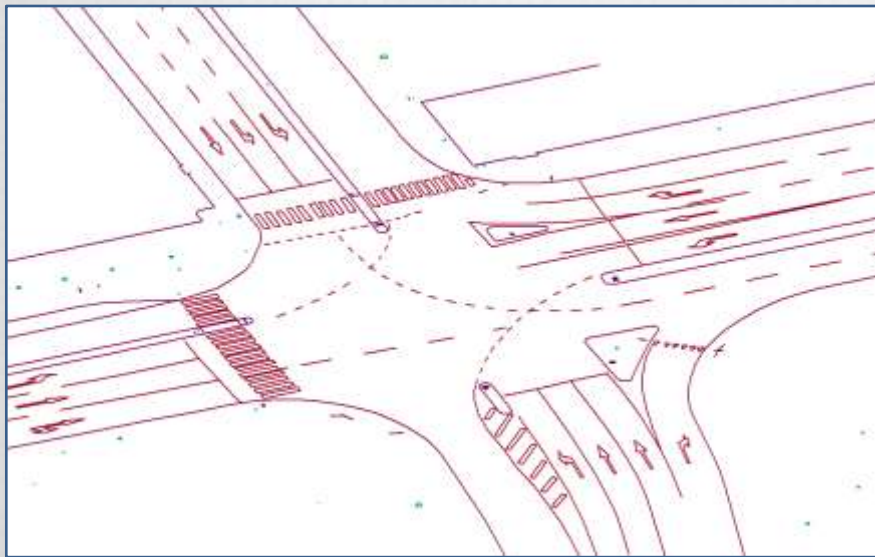


POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS
- CLEARANCE MEASUREMENT
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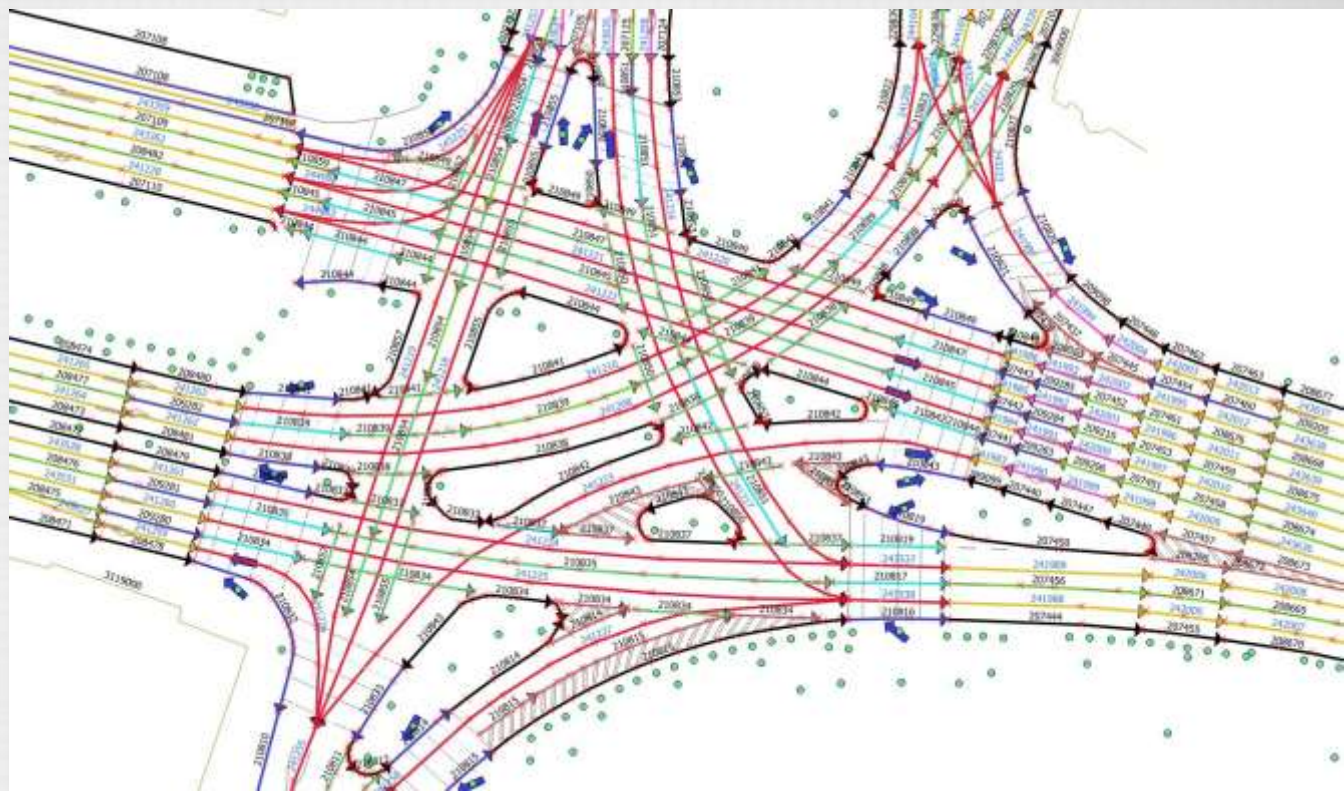
POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- HD MAPS



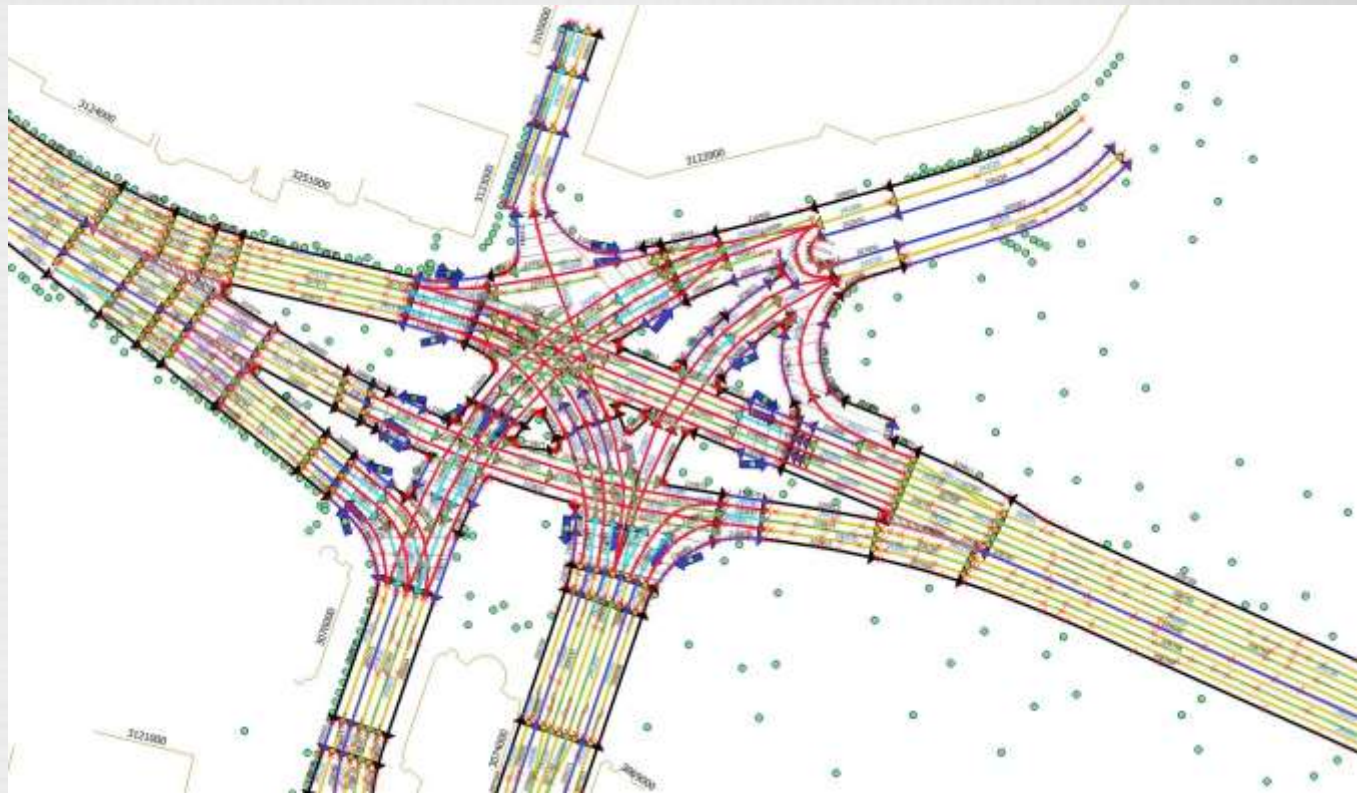
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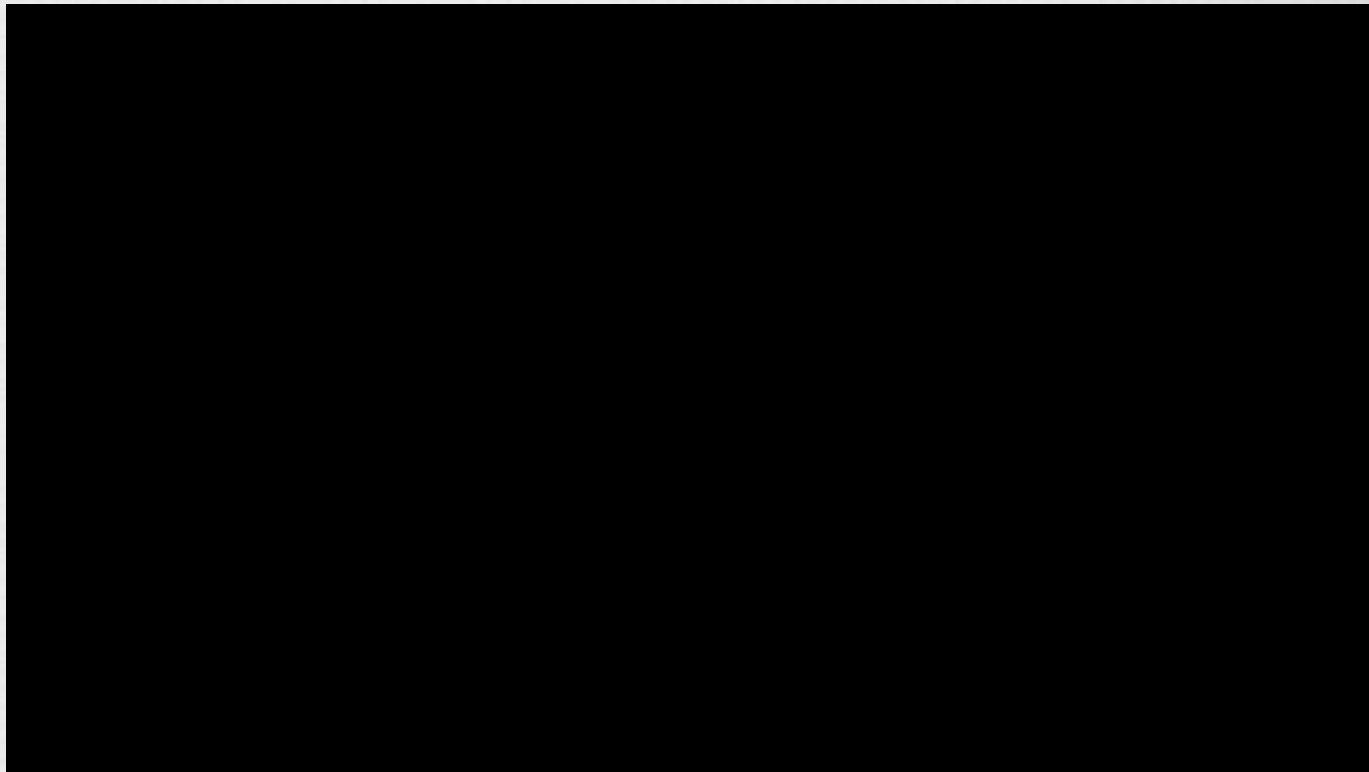


POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- TOPOGRAPHIC MAPS
- CLEARANCE MEASUREMENT
- HD MAPS
- VISUALIZATION

POINT CLOUD FEATURE EXTRACTION - PRACTICAL APPLICATION

- VISUALISATION



OUR CONTACT DETAILS

Contact us and we will answer your request!



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THANK YOU FOR YOUR TIME!

