

## Automated Classification

AI AND 3D LIDAR FOR  
INFRASTRUCTURES

*Why choose The Cross Product?*



### PRECISE TOOLS

High precision, an advantage over manual solutions



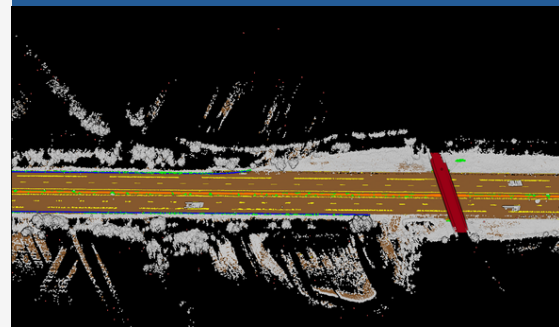
### SPEED OF EXECUTION

Automation representing costs reduction and time saving



### CLOUD PLATFORM

Integration into processing chains. Calculations performed on the cloud



PROPOSITION PREPARED BY  
**THE CROSS PRODUCT**

# A SOLUTION ADAPTED TO YOUR BUSINESS

## Responding to your needs

- Study what exists and automatically recognize the objects that make up the infrastructure
- Allow an accurate inspection of the elements present in the 3D point cloud
- Perform automated infrastructure inventories

We propose an algorithm combining **artificial intelligence** and **business knowledge** to accurately recognize **elements** in a motorway infrastructure.



Our software assigns to each object in the scene a **class** indicating its category as well as a **unique identifier** allowing an **exhaustive** and an accurate **analysis**.

Our solution is **100% automated, reliable** and **fast** to meet the needs of predictive and corrective maintenance.

An algorithm adapted to **linear networks**, capable of processing different sections in parallel and concatenating the results to obtain a **global view**.

### Input Data

- 3D Point cloud (LAS/LAZ/E57 format...)

### Output Data

- Semantic classification (LAS/LAZ/E57)
- Panoptic segmentation (LAS/LAZ/E57)
- Classification report (CSV)

### Compatibility

- Platforms (API)
- Any device with a web browser and an internet connection

**Can be integrated into point cloud processing platforms**

**Large-scale use throughout highway network**

**Pricing by kilometer or by subscription**

**Accessible on:**



**Contact us**



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### Products

#### Railway

#### Highway

#### Industrial Site

Products	Railway	Highway	Industrial Site
Classification	Semantic & Panoptic	Semantic & Panoptic	Semantic & Panoptic
Vectorization	Rails and track axis	Ground markings, safety barriers	Overhead wires and equipment
Professional Application	Clash Detection Reverse engineering	Clash Detection Reverse engineering Compliance of safety barriers	Safety distance verification

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**The Cross Product**

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