3DT
Technology meets efficiency

smart processing

The mobile mapping data analysis software

easy to use

SIMPLY MOBILE

Simply mobile ■ **smart processing**

«Today the mobile mapping systems are able to quickly collect a huge amount of data.
Unfortunately, the post-processing is not so fast and efficient.
We develop SmartProcessing including intelligent algorithms to simplify
and speed up the extraction of the most significant information.
Our mission is to give an easy access to any mobile mapping data».

Simone Rapposelli
3DT Software Engineer

The mobile mapping data analysis software

SmartProcessing is the most advanced mobile mapping data analysis and feature recognition tool in the market today. Developed from the company experiences in **road asset management projects**, the software has evolved to accept inputs from multiple sensors.

Different mobile mapping systems dataset (3D point clouds, images, etc.) can be imported through dedicated plugins, to merge large inputs coming from **terrestrial, marine, aerial or indoor** surveys.

Everything can be **measured from the 3D point cloud or directly from the images**.

Advanced extraction tools allow the automatically sampling of the information from the geometry or the RGB data, and storing them in dedicated databases.

The **graphical interface** is **user friendly**.

SmartProcessing supports the most common **GIS** and **CAD formats** (shapefile, kml, dxf, etc.).

Distributed processing[1] through a network spreads the automatic recognition tasks for the different tools in multiple computers to make the availability of the information even faster.

INTELLIGENT ALGORITHMS

EASY2USE

FAST PROCESSING

OPEN OUTPUT

MOBILE MAPPING

[1] Available in 2017
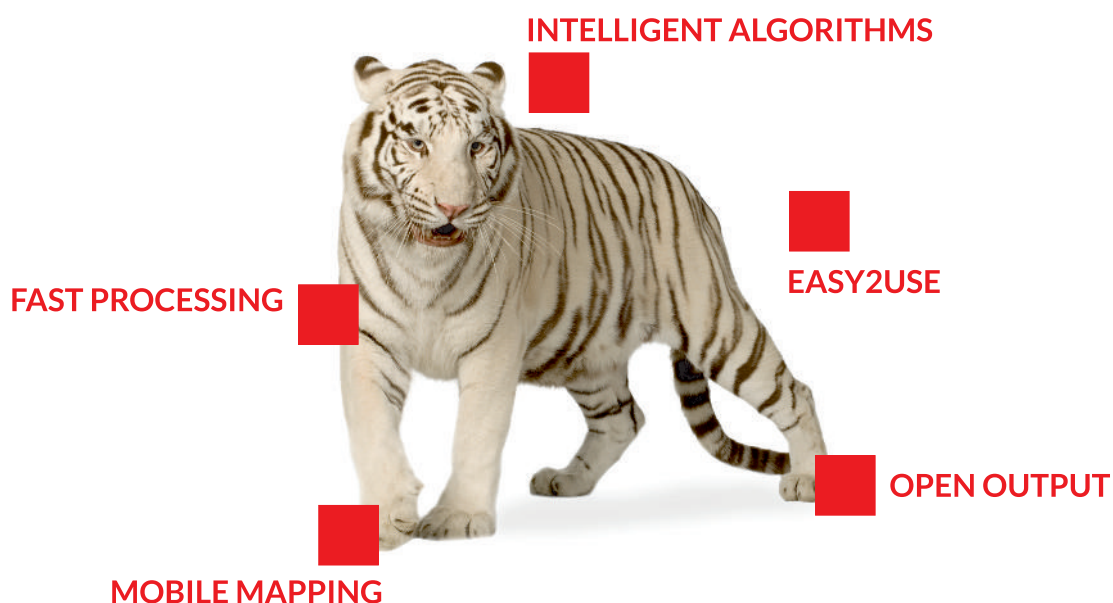
Road Geometry Tool

The road axis modeler analyses the trajectory of the vehicle, the road markings and edges to extract the geometry of the road, junctions and intersections.
SmartProcessing samples the full road design properties such as curvature, slope, and sight distance.
The coherence with the current standards, rules and regulations, can be evaluated.
The section tool estimates clearances, cross slopes and road width.
All the information extracted are available in DXF, KMZ and Shapefile format.

Rail Tool

SmartProcessing automatically detects the rails in the point cloud and samples the relevant design information automatically.
Inspection and analysis functions for track, tunnels and catenary geometry are available.
The calculation of clearance outlines and interferences is another option.
Infrared images can be imported and displayed.

Road Signs Tool

The intensity of the 3D point cloud allows the detection of the road signs and the evaluation of their dimensions and shapes.
A tightly coupled identification process easily recognizes the road sign through advanced image based and point cloud classification algorithms. Further details about each road sign (e.g.: height and properties of the pole) are automatically added, while the operator can populate the other properties through an easy template.

Road Markings Tool

The road markings tool discriminates the painted lines and other surface elements from the road pavement using reflectivity and color differences.
Run automatically the search along the whole survey, or just click in any point of a marking to find its boundaries.
Each area of road marking is classified with its properties such as the length, the width and average reflectivity.

Pavement Tool

The software can accept the inputs from pavement profilers and crack measuring systems to visualize the relevant information over the point clouds and the images and apply the road quality indices over each pavement sections.
The road by a single click in the point cloud.

Road Barriers Tool

SmartProcessing automatically extracts the traffic barriers by looking for their footprint in the road section at the edges of the roadway using always a multi-sensor approach: point cloud and images.
The relevant information (e.g.: height and distance between the posts) is associated with each cross-section.
The user can identifies the noise barriers as well by visually recognizing: our algorithms are capable to follow them along the road by a single click in the point cloud.

Centenary Tool

The road lighting columns are automatically sampled from the 3D information of the point cloud, along with electric poles.
Catenary of the wires can be modeled with just 3 mouse clicks!

Smart Measure Tool

Measure exactly what you need depending on the context: clearance under an electric wire or a bridge, the parameters of a driveway.
Anything you need can have the appropriate easy & powerful measuring tool!

SmartProcessing imports **different mobile mapping systems dataset** (3D point clouds, images, etc.) through dedicated plugins, **to merge large inputs** coming from **terrestrial, marine, aerial** or **indoor surveys**.

Measure everything from the 3D point cloud or directly from the images.
Advanced extraction tools allow the automatically sampling of the information from the geometry or the RGB data, and storing them in **dedicated databases**.

Survey manager

Main 3D window

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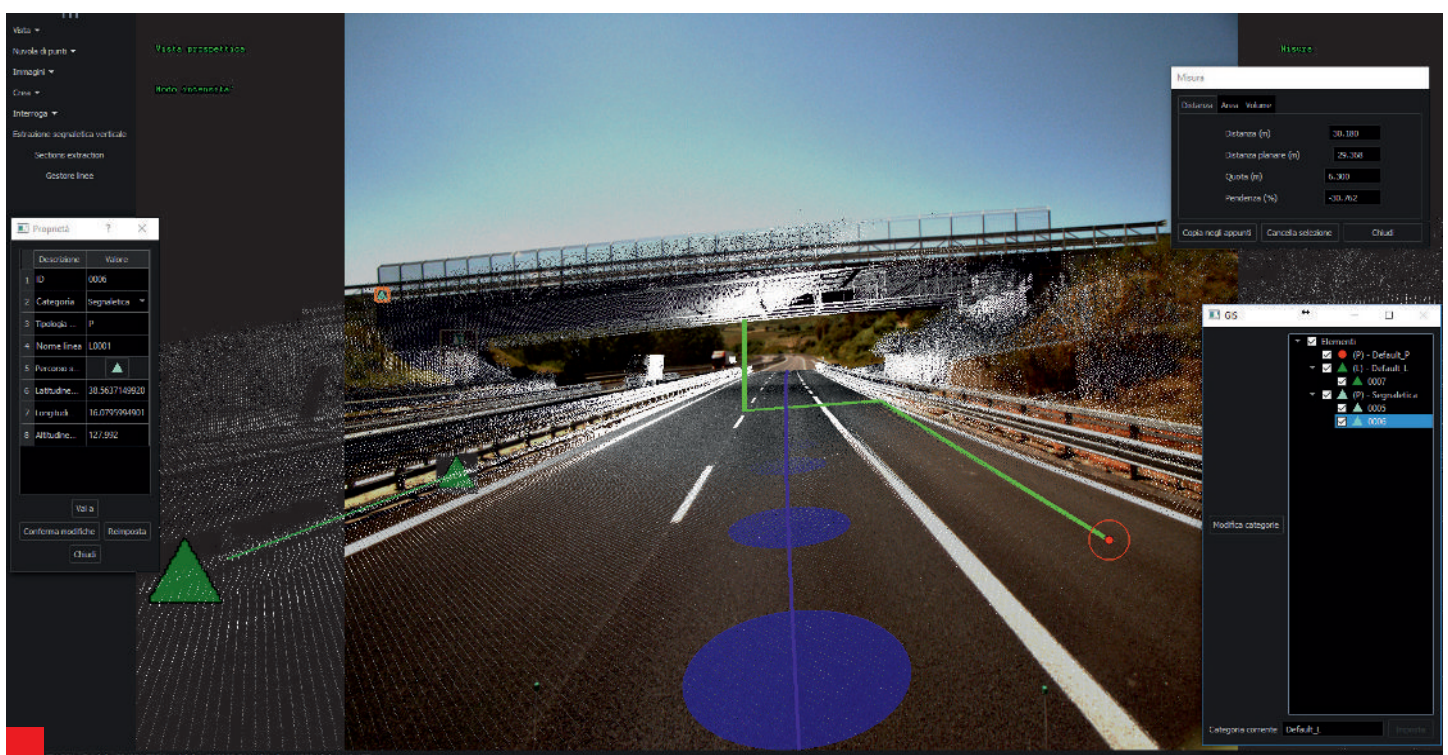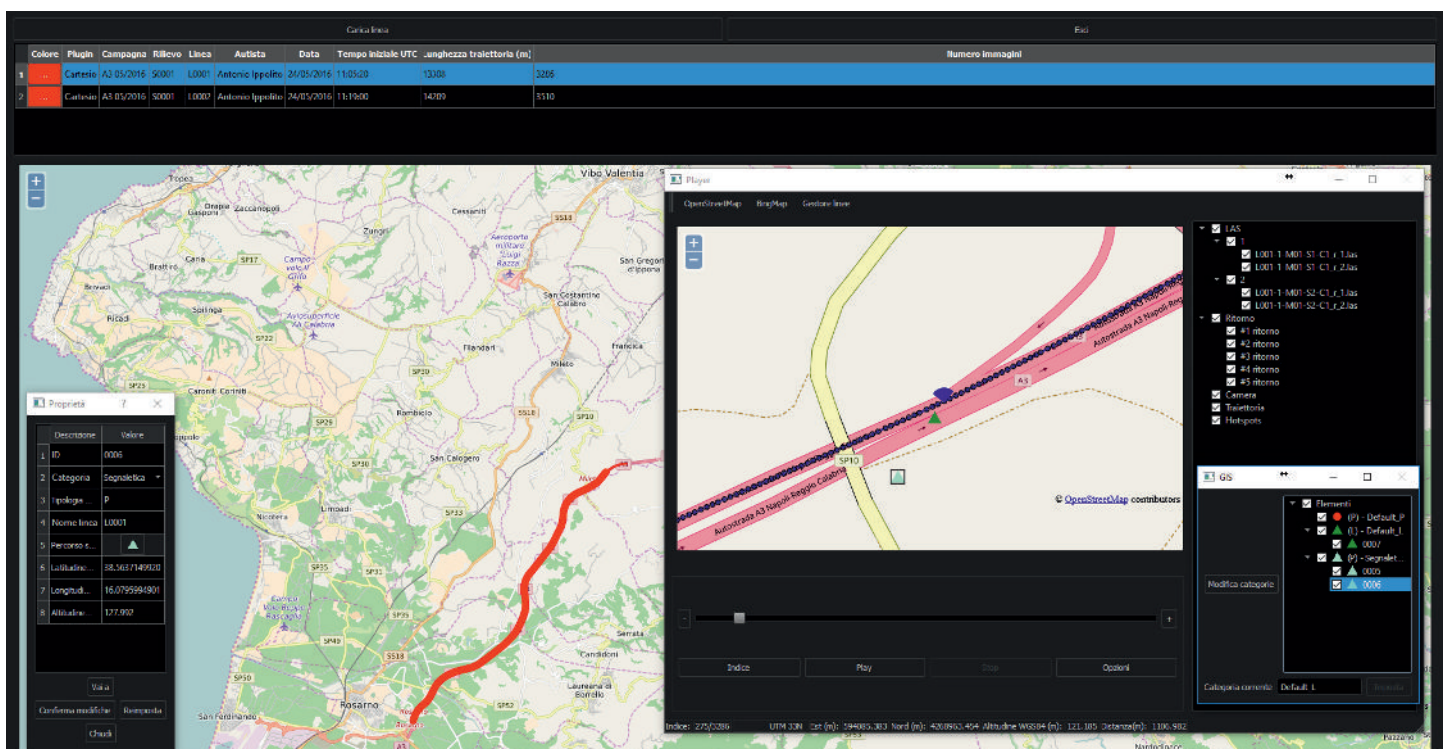
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The mobile mapping data analysis software

SIMPLY MOBILE

Multi-platform data import plugins

Distributed processing

User-friendly interface (GUI)

Configurable export formats

Fast navigation and measuring on point clouds & images
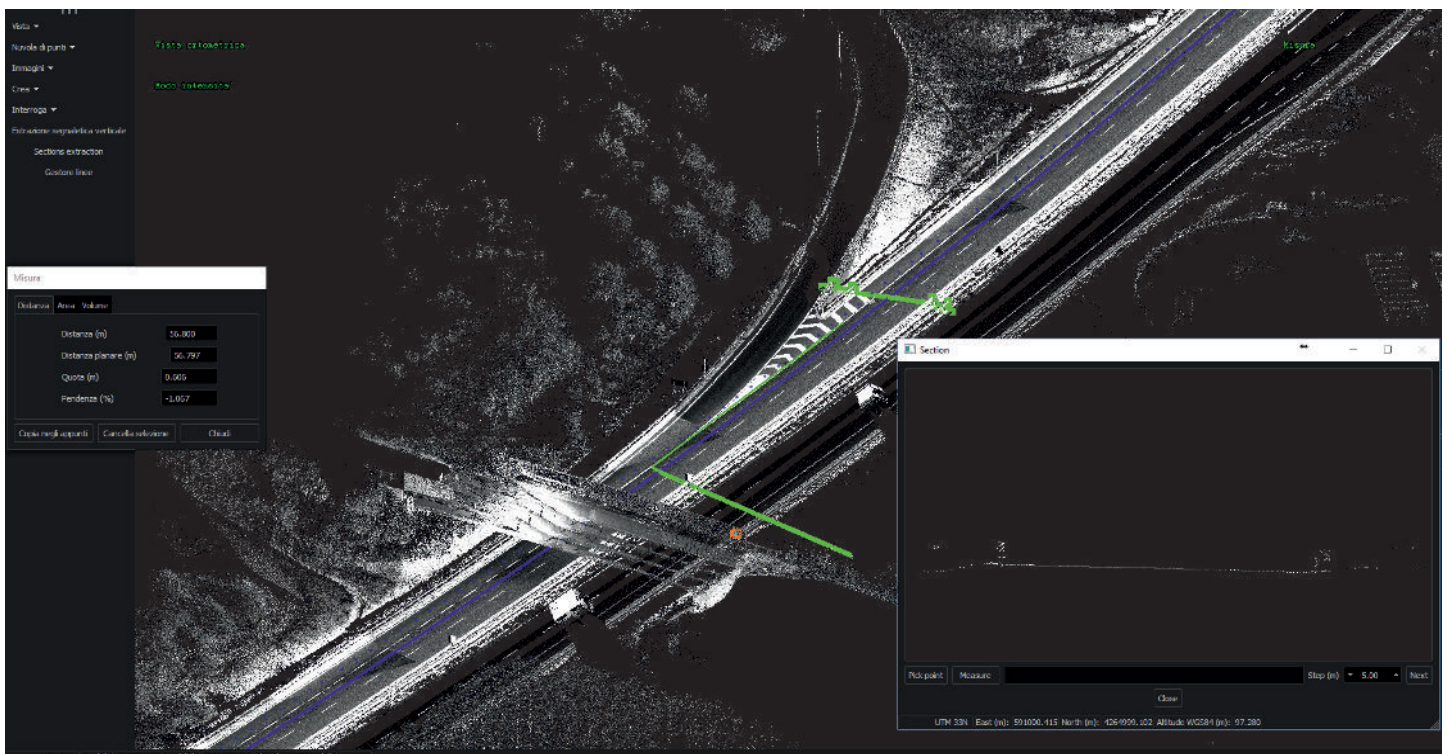
On request dedicated features

Intelligent detection & recognition algorithms Advanced road asset management features

API & SDK available for 3rd party application [1]

① Available in 2017

Cross-section tool

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APPLICATION

Road cadaster

Rail

Tunnel inspection

Bridges maintenance

Monitoring
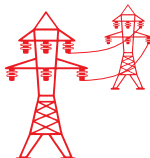
Asset Management

Virtual tour

3D reconstructions

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AUTHORIZED RESELLER