



DIGITALIZE TODAY TO IMPROVE TOMORROW

SCANDRONE

Founded in 2016, Scandrone is a French company established in Seine-et-Marne near Paris specialized in 3D modeling.

The skills brought together within our structure include : creation of a point cloud with a 3D survey, BIM digital model, metrology, photogrammetry, visual inspection, site monitoring pilot training, etc.

In order to best meet the expectations of our customers in a rapidly developing sector, we use the most innovative technologies and we take care of all the administrative procedures concerning the authorizations and security of the sites being studied.

THE FOUNDERS



JEAN-PHILIPPE MASSON
CO-FONDATEUR



OLIVIER CAZENAVE
CO-FONDATEUR

With their common passion about imagery and 3D, Olivier Cazenave and Jean-Philippe Masson decided, in 2016, to create Scandrone.

With their respective experiences, they combine their knowledge to carry out and perfect every single one of their projects, and rely on their expertise to best advise clients in defining their needs.

The complementarity of their profiles gives them a wide range of skills, from metrology, through 3D modeling and photogrammetry, while constantly keeping up to date with the latest technological advances.

OUR CLIENTS



Surveyors



Architects



Promoters



Local Authorities



Heritage sites

PHOTOGRAMMETRY

USE THE IMAGE TO MODEL REALITY

DEFINITION

Photogrammetry is the set of techniques used to reconstruct 3D objects from aerial or terrestrial photographs. The photographs are analyzed by software which reconstructs the 3D according to a mathematical algorithm.

The data processed can be used in the form of a point cloud or a textured 3D model. Each point of the 3D survey is referenced in space in the form of coordinates (x, y, z).

USE

Photogrammetry is used for the 3D reconstruction of an extended space, a location or an object, from the photographs taken.

PURPOSE

Photogrammetry is a technique which offers many potential uses. There are many possible applications: modeling of site installations, topographic surveys, capture of existing buildings for extension design, 3D modeling of constructions to calculate surfaces and volumes, modeling of objects for 3D printing and modeling of monuments for games or animated films.

All shapes, textures and surfaces are recovered. No matter the scale, all virtual renditions are possible.

EXAMPLES OF USE



Volume
calculations



Orthophoto



Digital terrain
modeling



Object
reconstruction

3D SURVEYS

CREATING A PRECISE AND ACCURATE POINT CLOUD OF THE SURVEYED AREA

DEFINITION

The 3D survey is a set of measurements made by laser scanning. It allows the digital imprint of an element to be taken with very high precision.

USE

The 3D survey enables the analysis of objects and their close environment to gather precise information on their dimensions, position, shape, color, texture or thickness. Leveling a floor, the flatness of a slab, even the most restrictive measurements are easily carried out and used via the laser survey.

PURPOSE

The 3D survey saves time for complex surveys. In a few minutes, a precise and accurate point cloud is obtained, and can be integrated with various tools allowing the easy use, backup and sharing of this data.

Each point is referenced in space with coordinates (x, y, z) and all of these points create a perfect copy of reality where each point is known and recorded in space. It is also possible to georeference the result of a 3D laser survey.

EXAMPLES OF USE



Measuring



3D Modeling



Point cloud
creation



Building
operations
management



Monitoring
operations



BIMs creation

BUILDING INFORMATION MODELING (BIM)

DIGITALIZING REALITY

DEFINITION

The BIM model is a digital representation of an infrastructure. It is a “smart” 3D model, where objects are defined in terms of building elements, such as walls, ceilings, floors, roofs, etc. The parameters of the objects are stored in a database associated with the 3D model. The model is built in modeling software on the basis of the point cloud previously recorded by a laser scanner.

USE

The digital BIM model makes it possible to obtain a virtual representation of a structure, taking into account the possible differences between the as-designed and as-built versions.

PURPOSE

The digital model is a virtual clone of an existing infrastructure. Its creation makes it possible to carry out measurements, simulations of works, but also to reference the materials used in the building.

This model allows the sharing of reliable information throughout the lifespan of the infrastructure. The BIM process offers all stakeholders in a project the ability to identify the responsibilities and limits of everyone’s interventions. Each element that is part of the BIM digital model contains data that characterizes it, which in fact gives this model an “intelligence”.

EXAMPLES OF USE



Level plans
views



Construction
elements
identification



Use in a BIM
project

VISUAL INSPECTION

EFFICIENTLY VISUALIZE AND CONTROL

DEFINITION

Visual inspection consists of taking quality aerial shots by a drone. It makes it possible to control all types of work, especially in dangerous or inaccessible places, without risk for workers.

USE

The visual inspection carried out by an unmanned aircraft (UAV or drone) is faster and more flexible to use than a lifting platform, it is the ideal solution for checking hard to reach or dangerous areas. The different sensors allow its use in various ways, ranging from the visible light spectrum to the invisible spectrum (IR).

PURPOSE

Visual inspection by drone is of significant interest in many areas. It can be used in agriculture, for the optimization of the cultivation of land, in the construction industry, for the inspection of roofs and structures. In the industrial sector, visual inspection by drone makes it possible to check dangerous or unreachable places for visual or technical checks.

Visual inspection thus offers a reduction in the cost and time constraints usually associated with this type of inspection. It also makes it possible to avoid human intervention, so as not to damage fragile areas, on historic monuments for example.

EXAMPLES OF USE



Inspection of
Electric lines



Building
inspections



Roof
inspections



Damage
checks

BUILDING SITE MONITORING

FACILITATING THE DELIVERY OF A BUILDING PROJECT

DEFINITION

Site monitoring is carried out at the request of the site manager to provide aerial images by drone or dimensional readings by laser scanner.

USE

Site monitoring allows for additional information to be collected in order to monitor the overall progress of the site or to carry out quality control after the assembly of important construction elements.

PURPOSE

Site monitoring by drone makes it possible, for example, to take a photo from the same point of view several days apart in order to see the progress of the work. The images produced are of high quality and offer the possibility of close-up views, their digital assembly and processing offers many possibilities. Thanks to the 3D model created, it is, for example, possible to carry out high precision measurements.

EXAMPLES OF USE



Building
operations
monitoring



Aerial Photo or
video



3D modeling



Building
inspections



METROLOGY

PRECISE AND ACCURATE MEASUREMENTS

DEFINITION

Metrology encompasses all the various techniques to make accurate measurements, interpret and ensure their reliability. It includes all the theoretical and practical aspects of measuring, whatever the field of application, in order to obtain geometric calculations of high precision.

USE

Metrology is used to quantify changes in quantities previously measured in order to have a view of the behavior of the structure over time. The objective is to anticipate changes due to wear as soon as possible.

PURPOSE

Three-dimensional metrology allows for high accuracy measurements. It also offers the possibility of monitoring structures in terms of shape or orientation, for example. It can be used for the inspection of infrastructures, and to check on the evolution of a building over time.

From the measured data it is also possible to evaluate the geometric evolution of a structure, its deformation, or even to evaluate the wall thickness. The advantage of this technique is therefore to be able to follow the transformations of a structure from a starting point.

EXAMPLES OF USE



Measurements



3D modeling



Point cloud
creation



Maintenance
and control
operations