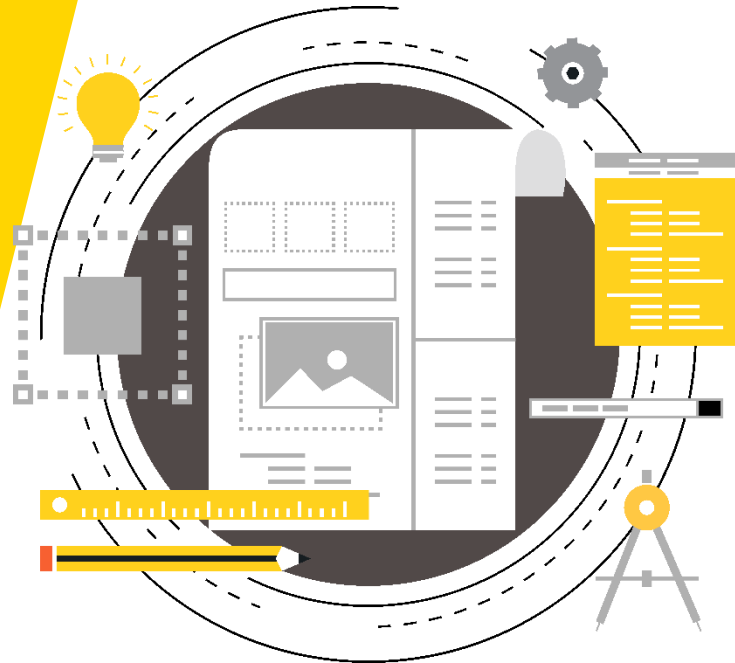




Digital Twin - Building Layout

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Introduction

Droning4Solar is a leading Droning company established in the Netherlands in 2018. We have been operating in the BENELUX market, working for major Developers and EPC companies since our inception.

We drone for commercial and utility scale - roof-top and ground mount solar projects.



01

Project Droning



04

Droning Output Documents



90%

02

Orthomosaic



50%

Work Done

03

DWG Building Layout

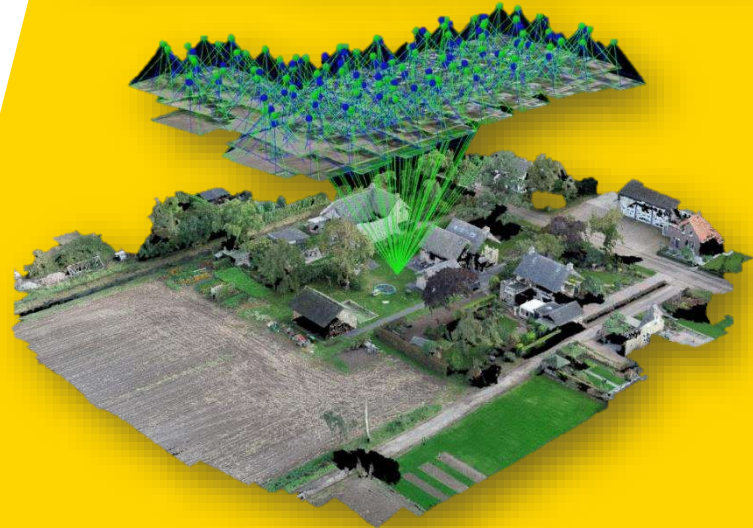
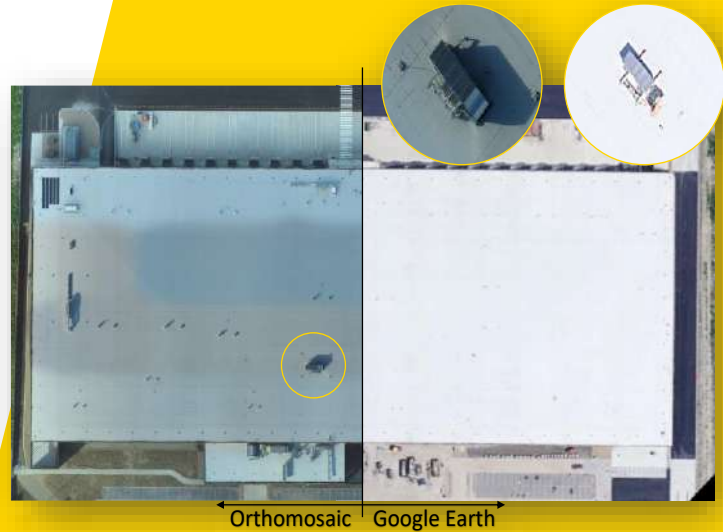


METHODOLOGY
DRONING4SOLAR



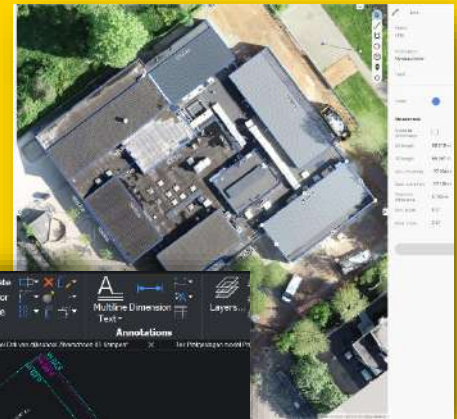
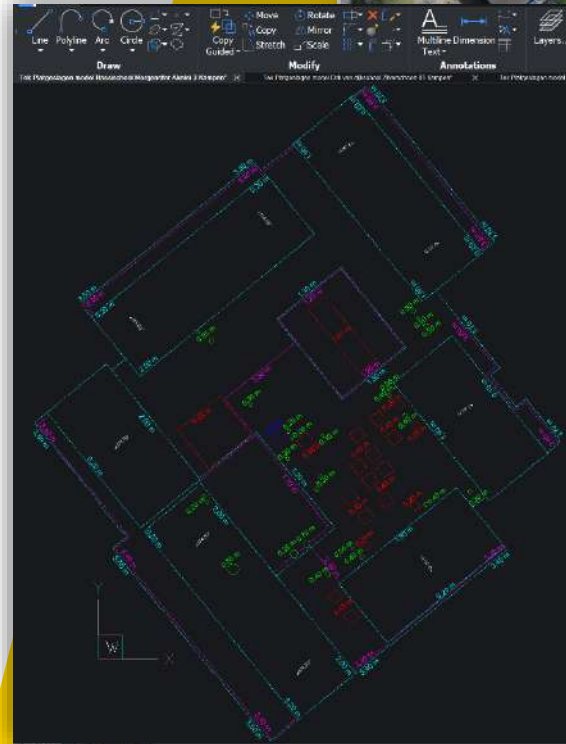
High Resolution Orthomosaic

- An Orthomosaic is a detailed high-resolution image, created by stitching a cluster of small photographs.
- These photos are methodically captured by a drone at the project site.
- Utilizing the Orthomosaic, any obstacles can be easily distinguished from temporary objects.
- In addition to the Orthomosaic, the photographs are compiled to generate a high-definition 3D model using Pix4D's state-of-the-art Photometry. The resulting 3D models can be viewed, measured and interacted with, via a web browser.



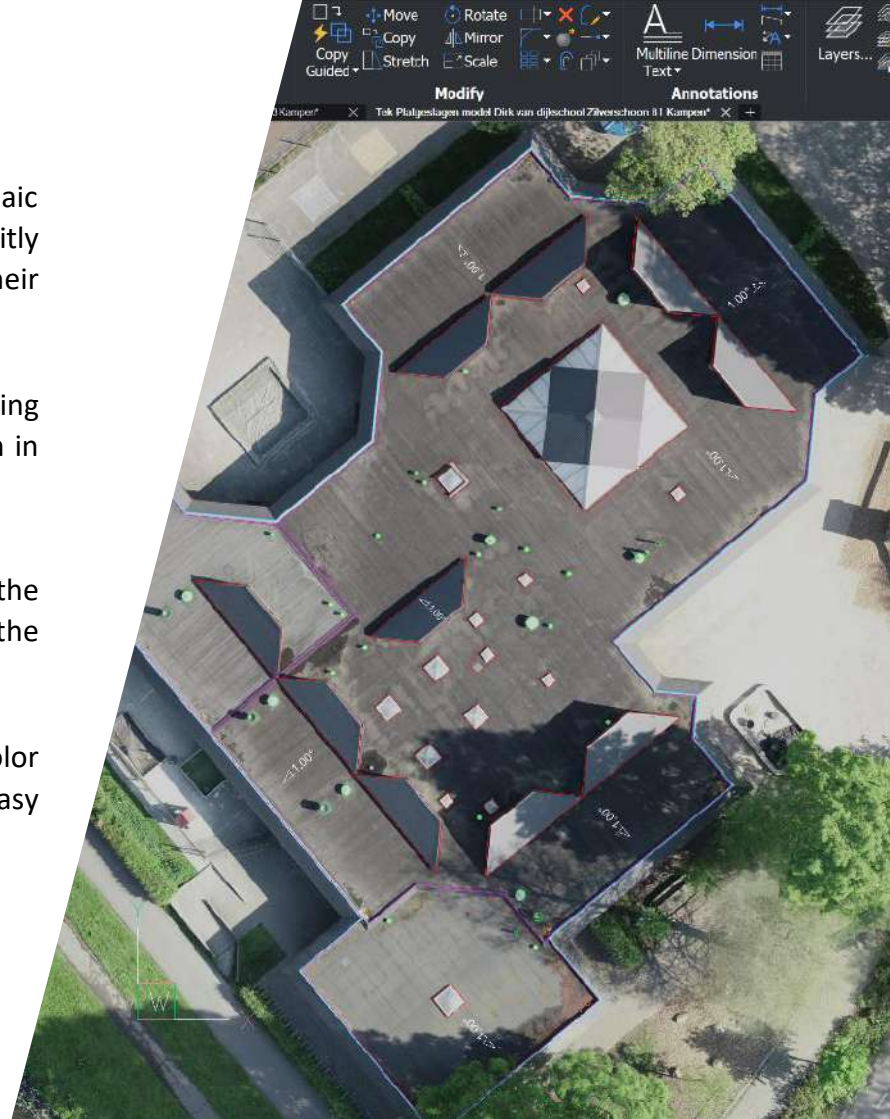
Orthographic mapping of building

- Using an accurately scaled Orthomosaic background, we design the building periphery, the ridges and gutters with the appropriate dimensions and considerations taken into account.
- Using Pix4D's elevation profile feature, the height of the building and the ridges are accurately measured and indicated along the edges of the building lines.
- For sloped roofs, we design the gutters that run along the edges of the roof.
- We ensure a safety clearance is provided between the building edge and the panel designs.
- The height of each obstacle is measured using Pix4D and shown in the Layout.



Obstacles Identification

- Utilizing the high-resolution Orthomosaic and droning photographs, we explicitly identify the obstacles and indicate their precise locations on roofs.
- We measure the obstacle heights using Pix4D's elevation profile and show them in the design.
- We ensure a safety clearance between the obstacles and the panels we design on the roof.
- Each different type of obstacle is color coded to ensure that it is distinct and easy to comprehend.



VirtoCAD

- VirtoCAD is our primary tool for creating 3D-visualizations based off our highly accurate Orthomosaic backgrounds.
- All the details like obstacles and building parapet are included in our 3D designs.
- We use these 3D designs for simulating the near shading details.
- The DWG is already geolocated to the project location for precise designs with terrain mapping.
- Using Point cloud system, we design 3D-models with extreme accuracy.



Why to Choose Droning4Solar....?

Expert Solar Designers: Our team of solar design experts brings years of experience and in-depth knowledge to create efficient and optimized solar panel layouts.

Cutting-Edge Technology: We use advanced orthomosaic droned images for precise and accurate solar panel placements on roofs.

Tailor-Made Solutions: Every project is unique, and we design custom solar systems that perfectly fit your energy needs and budget.

Sustainability Champions: By choosing 4solar, you contribute to a cleaner and greener future for generations to come.

Compliance: Our designs adhere to all relevant industry regulations and local building codes.

Transparent Pricing: Clear and detailed pricing breakdowns help you understand your investment and potential savings.

Customer Satisfaction: Countless happy clients testify to our commitment to excellence and customer-centric approach.

Partner with us at 4solar, where innovation meets sustainability!



Certification

Droning4solar has a Specific category license and uses certified drone pilots. This gives us the opportunity to carry out droning operations throughout BENELUX. Our pilots have both the new European A1, A3 & A2 licenses, the Specific category and RT license.

All this to ensure safe droning operation and as few risks as possible.



Contact

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