Solar Planning at Its Best

Where Science, Efficiency, and Simplicity Converge

ISSP is a complete end-to-end solar panel planning platform developed by Idan Computers. It takes a project from initial site survey all the way to a signed-off client portfolio — with minimal manual input, maximum accuracy, and results that would take days with conventional tools delivered in minutes.

HOW IT WORKS

The Complete Workflow

01 Site Capture

One button triggers a fully autonomous drone flight over the site. Imagery is processed automatically into a centimetre-accurate, real-world GPS-coordinate 3D model — textured with real aerial photography so the model looks exactly like the actual site from above.

- No drone? We can generate the same 3D model from free web services.

02 Panel Placement

With a few clicks on the 3D model, ISSP places panels optimally on any roof type — flat, tiled, east or west sloping, or any combination. From a handful of residential panels to 2,500-panel industrial zones. Multiple independent arrays can be placed on the same model.

- Automatically optimises panel tilt to maximise both roof coverage and energy yield
- Computes inter-row spacing to eliminate mutual shading
- Pairs and fills rows intelligently — including mixed portrait and landscape orientation
- Detects and corrects baseline skew on sloped roofs automatically
- Adapts to sloped roofs using a virtual flat projection rotated to follow exact roof geometry
- Every panel and measurement anchored to real-world GPS coordinates

03 Panel Adjustment

After placement, every panel or group can be fine-tuned with full precision.

- Move, lift, or tilt — individually or as a group
- Duplicate or delete panels instantly
- Inspect exact tilt and azimuth for any panel
- Visualise shading for any selected panel

04 Shadow & Obstruction Analysis

Comprehensive shadow analysis at three levels: per panel, across the full model, or as a dynamic animation across the day or year. ISSP also simulates moving obstructions — air conditioning units, satellite dishes, boilers, water tanks — showing exactly which panels are affected and by how much.

05 Structural Design

One button generates accurate structural design documentation — ready for permits, contractors, and inspections.

06 CAD Export — DXF & IFC

ISSP generates accurate, industry-standard CAD files for every project:

- DXF — precise panel layout drawings compatible with all major CAD platforms
- IFC — the international Building Information Modelling (BIM) standard, enabling direct integration with structural and architectural workflows
- All coordinates in real-world GPS — ready for contractors and engineers from day one

07 Energy Report

ISSP uses the PVGIS historical irradiance database to compute accurate annual yield per panel, based on 4,300 sun hours per year and accounting for:

- GPS-precise location, temperature coefficients, humidity and atmospheric correction
- Historical overcast data from decades of real measured irradiance
- Exact tilt and azimuth of every individual panel
- Calculation performed at all four corners of every panel

08 Client Portfolio

One button assembles the complete client file:

- 3D site model with real aerial photography texture
- Panel layout drawings with GPS coordinates per panel
- Interactive BOM report — live HTML with visual panel map and per-panel hover details
- Energy yield projections per panel
- Shadow analysis report and structural design documentation
- DXF and IFC CAD files
- Print-ready PDF export

WHY ISSP

Key Differentiators

One-button operation	Almost every step is a single button push. No specialised training required.
End-to-end in one platform	From autonomous drone flight to signed client portfolio — nothing leaves ISSP.
Centimetre accuracy	Real-world GPS coordinates throughout, from the 3D model to individual panel corners.
Automatic optimisation	Tilt, spacing, row pairing, orientation mix, and roof coverage computed automatically for maximum yield.

Any scale, any roof	Flat, tiled, sloped, mixed geometry — 5 panels to 2,500. Dedicated algorithms for every roof type.
Real aerial photography	The 3D model is textured with actual site imagery, not generic placeholders.
Industry-standard CAD	DXF and IFC export — compatible with every major CAD and BIM platform used by engineers and contractors.
Interactive deliverables	The BOM report is a live HTML document with a visual panel map and per-panel hover details.
Obstruction simulation	Model the impact of objects that may appear or move on the roof after installation.
PVGIS-backed energy data	Results based on decades of real measured irradiance data, not estimates.
Multiple arrays per model	Several independent installations can be planned on the same 3D site model.

ABOUT IDAN

A software development company since 1971, Idan pioneered oblique imaging technology and remains the trusted leader in advanced mapping and civil engineering solutions, serving government, military, law enforcement, and private sector organizations worldwide. Idan also developed CARTA, the first commercial contouring software based on a triangulation algorithm.

Ready to optimise your solar projects?

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