



pvPlanner

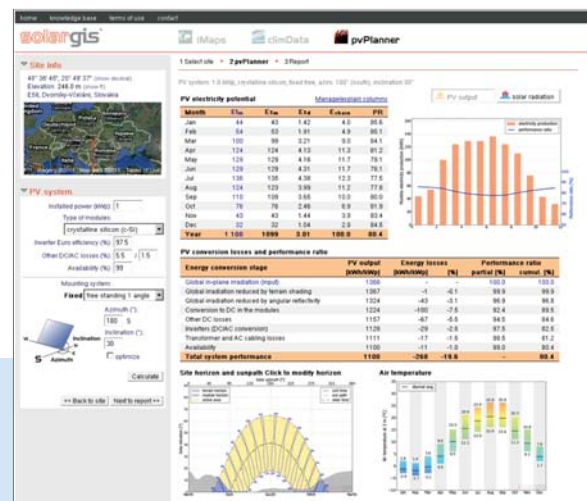
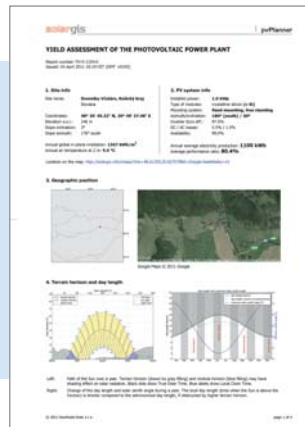
EFFICIENT AND USER-FRIENDLY SIMULATION TOOL FOR PLANNING AND DESIGN OPTIMISATION OF PHOTOVOLTAIC (PV) PROJECTS based on high accuracy algorithms and detailed spatial and temporal weather data. It provides information about potential yield of PV system for any site or roof.

- Easy search of a site or roof (based on address or GPS coordinates)
- High resolution data inputs:
 - Solar radiation is spatially enhanced using digital elevation model
 - 15-minute of solar radiation and temperature values are used to consider non-linearity of PV performance
 - Aggregated probability distribution statistics derived from real time series of solar and temperature data significantly reduces uncertainty of simulations
- Simulation of PV technology options:
 - Fixed-mounted, single-axis and double-axis tracking
 - Module technologies: c-Si, a-Si, CIS/CIGS, CdTe
 - Angular reflectivity and response of PV modules to irradiance and air temperature
 - User-selected inverter efficiency, DC and AC losses and availability
- Estimation of the potential electricity production
- Performance analysis of the system and its individual components
- New horizon editor for roof systems
- Output of monthly statistic values of solar radiation and system performance
- Generation of standardised reports in PDF in many languages, data export to CSV and XLS
- Possibility to export the weather data in other software packages for detailed design of PV systems

Benefits

- Fast access to the data and simulation tools
- Low uncertainty of estimates
- Easy comparison of technology alternatives or sites
- Reduction of investment costs and risk in decision making
- Optimization of a project development

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Global irradiation [kWh/m ² /day]	4.1	4.3	4.2	4.5	4.8	5.0	4.9	4.5	4.1	3.7	3.3	3.0	4.3
Global irradiation [kWh/m ² /year]	120	124	124	129	136	142	142	136	124	113	101	90	1308
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pvSpot

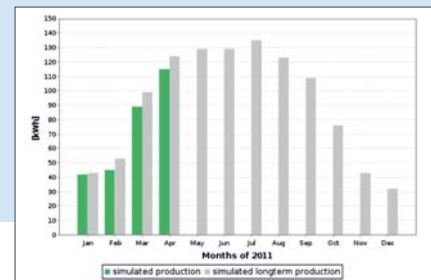
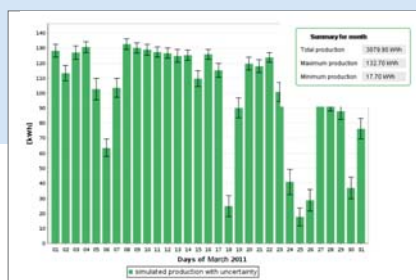
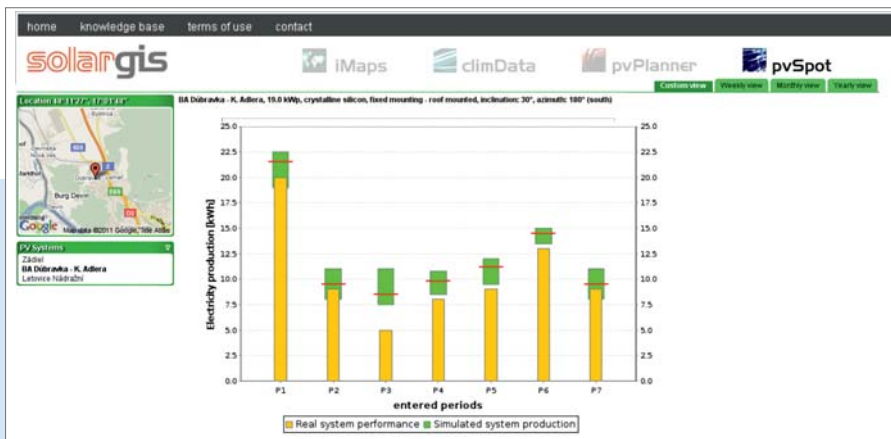
COMPARATIVE TOOL FOR PERFORMANCE APPRAISAL OF A PV SYSTEM UNDER OPERATION.

pvSpot is based on the comparison of user-specified real production data with independent simulations applicable for any site or roof.

- Performance monitoring of a PV system based on real time weather data (solar irradiance and air temperature)
- High accuracy models with known uncertainty
- Evaluation of performance efficiency and error detection
- Data export to CSV and XLS for further processing, generation of reports in PDF
- Optional comparison to production values in invoice or counter readings
- Possibility to detect anomalies

Benefits

- Operational control of a PV power system of any size
- No need for monitoring hardware
- Weekly, monthly and annual overview of production
- Results of production analysis are communicated daily to customers via web services
- Independent and objective information



<http://solargis.info>