

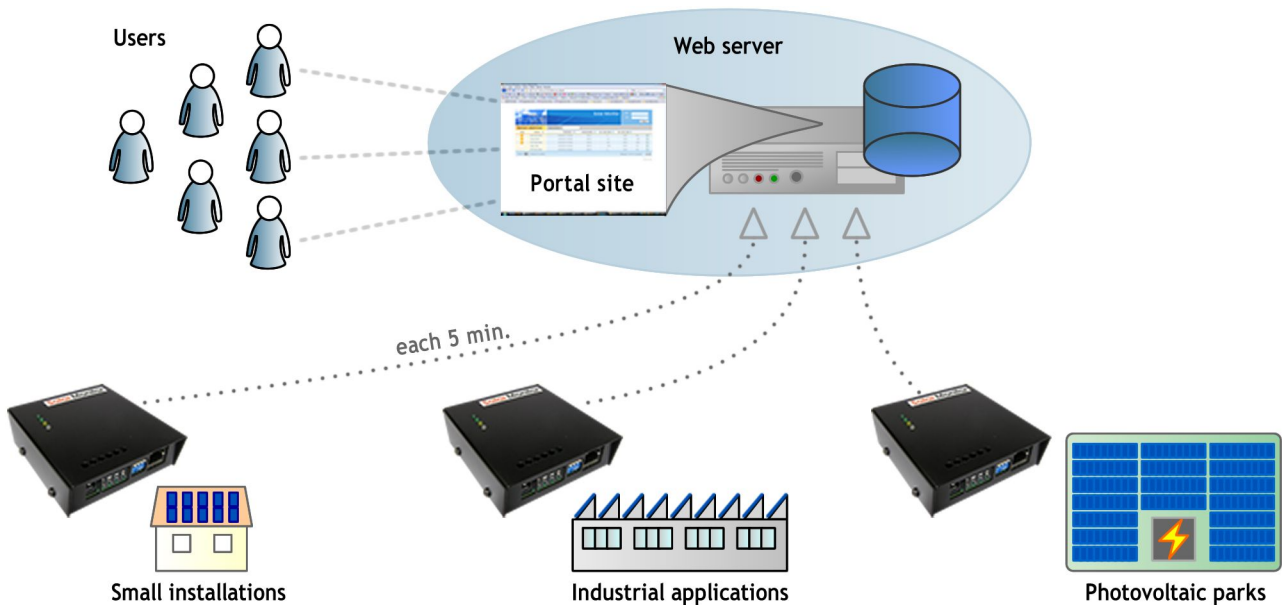


Solar Monitor Portal

detailed PV plant data analysis

portal.solarmonitor.cz:

- Inverters from different manufacturers are displayed in **uniform web application**
- Immediate info about failures – data are updated in **5 minute intervals**
- User interface with intuitive navigation, **interactive detailed graphs** with area zooming
- **Data analysis** quickly finds less efficient components
- **Worldwide accessible** from your web-browser
- Several Solar Monitor units can be **aggregated** into a logical PV-plant
- **Energy yield audit** with average monthly irradiation required by some banks
- Displays **energy consumption** to fit in a **limit**, negotiated with your electricity company
- Optional **custom design** can help with integration into your company web presentation



Key Features:

- **Overview:**
A brief look informs you about PV plant overall status.
- **Data Analysis:**
Yielded energy is compared to show less efficient or malfunctioned inverters.
- **User Authentication:**
Only approved users can access your data. Moreover you can hide your PV plant from public users.
- **High Availability:**
Application server is placed directly on Internet backbone.
- **Alarm History:**
Alert list allows to diagnose a problem source. Recurring warnings challenge to fine-tune your inverters.
- **Production Audit:**
Compare reached production with PVGIS prediction.

Detailed Graphs:

- History of inverter values (U_{PV} , U_{AC} , I_{PV} , I_{AC} , P_{AC} , f_{AC} , T_{KK}) for all DC inputs and AC phases.
- Sensors help in finding a problem source (irradiation, ambient and panel temperature, humidity, wind speed and direction and others available).

Data availability:

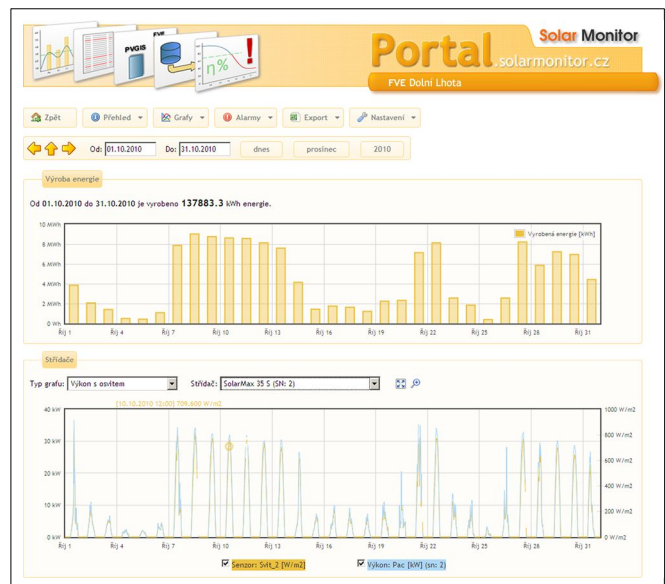
- Any web browser is sufficient on a client side.
- No need for public IP addresses for each PV plant location.
- Server is placed in a hosting center, where high bandwidth, backups and maintenance is guaranteed.

PV plant Parks:

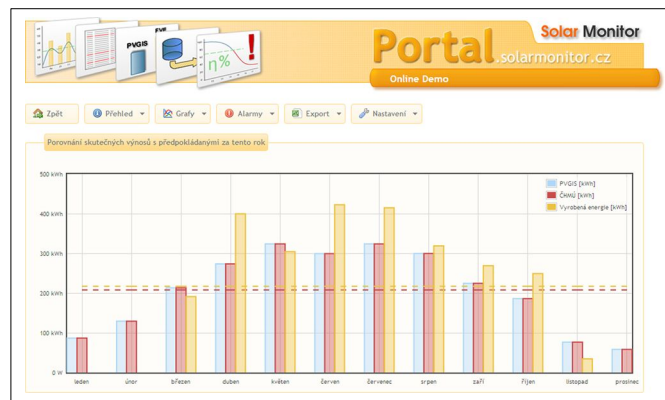
- PV plants with more Solar Monitor dataloggers can be aggregated to act as a logical one.
- Several PV plants can be assigned to a login account to offer a common management.
- A user can configure component names and other parameters for his individual needs.

Data sharing:

- Web Portlet is used to publish actual PV plant data within any web site.
- Windows Gadget is also available. You can watch PV plant data directly on your desktop.
- Visualization on large LCD panels convince your future customers.
- M2M communication is possible with web service interface.
- Data can be exported for further processing e.g. In MS Excel.



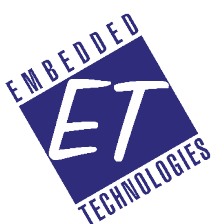
Monthly production and power/irradiation graphs



Production Audit based on PVGIS data

The screenshot shows a custom-designed entry page for the 'ePORTAL' system. It features a table with the following columns: 'Zobrazit', 'Odkaz', 'Název', 'Zařazení', 'Aktualizace', 'Vyrobeno [kWh]', 'Inst. výkon [kW]', and 'Hledat'. The table lists various PV plants such as 'Horavský Žukov I', 'Janoice', 'Suvice', etc., along with their production and installed power values.

Custom-designed entry page



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