



Press Release - SunSniffer integrates Raspberry Pi

## SunSniffer integrates Raspberry Pi!

The latest SunSniffer generation has much to offer: Linux and Raspberry Pi not only allow countless additional applications but also equip a PV system for all future market changes and requirements.

Storm bade farewell to its proprietary software system and is now looking to the open platform Linux for its module-specific PV plant monitoring technology SunSniffer. In a constantly changing political and technological environment, it is particularly important to be able to respond in a timely and cost-sensitive fashion. Using Linux increases the ability to update and adapt to the maximum, and modifications can be made extremely flexibly, quickly and, above all, economically.

Another new feature is the integration of Raspberry Pi mini-computers into the solar plant operating system SunSniffer. In order to further enhance its functionalities Storm developed an I/O supplementary card with hitherto missing interfaces. This supplementary card is plugged onto the Raspberry Pi board and expands it by five RS-485 ports and eight analog/digital I/O interfaces. Application possibilities are therefore almost limitless, making SunSniffer a fully integrated all-round management system which meets the requirements of a smart grid and able to operate virtually any kind of solar installation.

For example, the data of inverters from different manufacturers such as Refusol, Huawei, Kostal, Kaco, SolarMax, PowerOne, Danfoss, Schüco and Delta can now be read and analyzed. In addition, SunSniffer now also has the ability to operate these inverters. This is particularly important in connection with remotely controllable turn-off capability by means of the radio ripple control receiver. But the real-time reduction of plant performance for remuneration according to the market premium model is also not a problem with SunSniffer. In addition, meters can be read, which should be of great interest for larger apartment buildings with a large number of meters. And of course the entire data transmission is standard SSL-encrypted, fulfilling the future BSI Smart Meter Gateway requirements today. Even interconnection bandwidth analysis is possible, swiftly exposing connection errors in kind, extent and cause. With SunSniffer the system is 100% transparent, and timeconsuming, elaborate troubleshooting becomes real-time fault finding.

The optional hooking-up of, for example, jacks and the remote-controlled activation of additional external devices allow countless integration and other possible uses. The video capabilities of Raspberry Pi provide techies the possibility of, for example, integrating cameras for optical monitoring of the PV system. Raspberry Pi is able to transmit a video signal of  $1920 \times 1080 30$  fps.

All these new features and enhancements make SunSniffer a veritable all-round specialist: one device for all.

## **About STORM:**

The STORM Energy GmbH is a company of Storm Holding, which has engaged in the development of new technologies in the field of real-time processes and big data for over 25 years. With the establishment of a new division in 2006 the move towards renewable energy, particularly photovoltaics, was made. The experience and knowledge gained from the construction and operation of solar power plants together with the constructive discussion of these specific challenges led to the formation of their current core competency: the development of an operating system for solar installations.

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## Press material and images:

http://www.stormenergy.de/index.php/de/service/downloads

For more information on SunSniffer ®-patented: www.sunsniffer.de, about the company: www.stormenergy.de