



FAT SPANIEL INSIGHT MANAGER™: A MULTI-SITE MANAGEMENT PORTAL FOR RENEWABLE ENERGY SYSTEMS



The Fat Spaniel Insight Manager portal provides a rich set of services for managing a portfolio of many renewable energy sites, regardless of inverter manufacturer. This Performance Ratio view is one example of its features.

Insight Manager Streamlines Operations and Maintenance

When you sell a renewable energy system, you start a long-term relationship that can last for years. The support and maintenance contract for that system represents an ongoing revenue stream—and a risk. How can you meet the customer’s expectations for uptime and performance? How will you know when the system experiences a problem or fails? How can you improve responsiveness without incurring additional support costs? Fat Spaniel Technologies can help you answer these questions with the Insight Manager for Service Providers, a portal service that can be viewed from any Web browser.

Whether you are a Power Purchase Agreement (PPA) provider or an Installer / Integrator responsible for operations and maintenance, Insight Manager provides you with access to detailed information for the systems you own or manage. This multi-site management portal provides views of all of your managed sites. You can see aggregated production data and system state of health at-a-glance, or drill down for more detailed information such as Web views and event logs for each site.

Increased System Uptime with Site List and Event Management

Insight Manager includes a site list that offers support personnel a single, high-level view displaying the name, location, size, and current health status of all their systems. A “green” icon indicates normal site operation, “yellow” indicates the system is running but needs attention, and “red” indicates a more serious performance issue. Support staff can quickly access detailed site information or click on “red” sites to determine what the problem is—rather than waiting for an irate call from the customer—and proactively respond.

Critical Monitoring and Reporting Services for Renewable Energy Systems

Benefits

- Manage all your sites using a single web-based management portal
- Works with any kind of monitored renewable energy system e.g. solar electric, solar water heating, and small wind systems
- Gain quick access to simple or detailed Web views of each site
- Efficiently monitor system health and performance remotely
- Monitor actual vs. expected energy output for each site
- Receive automated email or SMS alerts when system faults occur
- Increase customer satisfaction
- Reduce support costs with fewer truck rolls
- Increase site uptime and long-term energy output

System Status

- Normal system operation
- ▲ System is running but needs attention
- ◆ System performance issue

For more information, please visit www.fatspaniel.com

Our sales and technical specialists will also be glad to help you at sales@fatspaniel.com or call +1.408.279.5262

The Fat Spaniel Insight Manager continually monitors system health and notifies support personnel of performance issues through automatic alerts. An Event Log provides status, event/fault codes, and alerts on a per-site basis. Those responsible for maintaining sites have access to these event details for diagnostics and trouble-shooting.

- **Automatic Alerts for Issue Notification** – Alert Engine automatically sends out a notification via email or SMS whenever an alert threshold is reached. Notification can be assigned to one or more recipients, such as a maintenance subcontractor, installer, technician, or commercial facility manager. Alerts eliminate the need to manually check in to determine whether a system is functioning properly, thus reducing downtime, cutting support costs and improving customer satisfaction.
- **Customized Alerts for Increased Impact** – Event Management enables support personnel to set or modify parameters for specific alerts and to designate the recipients of those email alerts. The support staff's control over these parameters reduces the risk that alerts (or too many alerts) may be sent for conditions that are not serious enough to warrant immediate attention. This ensures that support resources are focused on the most serious issues that affect uptime and output.
- **Fault Tracking and Diagnosis** – Event Log can track and diagnose a problem, which helps resolve issues more quickly. It offers an in-depth view of events: description, device affected, duration, start and end times, and when the alert notification was sent. It also maintains a complete history of system events.
- **Event Notes for Sharing Maintenance Information** – Event Log includes the capability to acknowledge an event and add a note to an event. When a member of a support staff acknowledges an event, a note can be attached to that event, which other users of the system can see. This provides the complete support team with insight that a particular event has been observed, who has observed it and any notes that the team members have made.

Maximizing System Performance

The Fat Spaniel Insight Manager provides real-time and historical analysis of site operation to easily determine whether the system is operating at peak performance and, if not, identify components that are underperforming.

- **Site Data and Informational Views** – The Site List and Individual Site Views offer flexible analysis of site operation and performance. Analyzing this data allows close tracking of historic and real-time system performance down to the component level. This allows the user to quickly identify which device is underperforming or has malfunctioned. Along with Event Management, this feature gives the maintenance operator an understanding of what component needs attention and to proactively respond to keep performance maximized.
- **DC Monitoring for Identification of Underperforming Strings** – String Monitoring provides the ideal solution for operating large solar electric systems at maximum output. With a large inverter and as many as 120 strings connected, it is often hard to tell when a single string or set of strings (sub-array) is underperforming. String charts and events provide the ability to see graphs of each string's performance and receive alert-based notification of failed or underperforming strings.
- **Performance Ratio for Maximum System Output** – Comparing actual system output to expected output provides the basis for Performance Ratio Analysis. Whether the expected output is based on a theoretical calculated value provided by the system designer, or is derived from the solar resource measured on-site by a pyranometer, comparing to the actual output can provide peace-of-mind that system performance is optimal. The Performance Ratio also provides design validation and feedback to engineering and maintenance personnel.

System Specifications:

- Active connection to the Internet (minimum: 128 Kbps)
- Browser compatibility:
 - Microsoft Internet Explorer v6+
 - Mozilla Firefox v1.5+
 - Netscape v8+
 - Opera 9.10+
 - Safari 3.0
- Some features require the Adobe® Flash® Player installed in browser

Hardware Compatibility:

- All Revenue-Grade products
- Inverters supported with direct monitoring:
 - Advanced Energy Solaron
 - Fronius
 - Outback Power FX-Series and MX-Series
 - PV Powered
 - SatCon PowerGate
 - SMA
 - Solectria
 - Xantrex PV Series
 - Xantrex GT100, GT250
 - Xantrex GT500*
 - Xantrex GT2.5 - 5.0
- Inverters with extended Event / Fault Code Support:
 - Advanced Energy Solaron
 - Outback Power FX-Series
 - PV Powered
 - Satcon PowerGate
 - Solectria PVI 13kW and up
 - SMA with Webbox*
 - Xantrex PV Series
 - Xantrex GT100, GT200
 - Xantrex GT500*

* Coming Soon

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