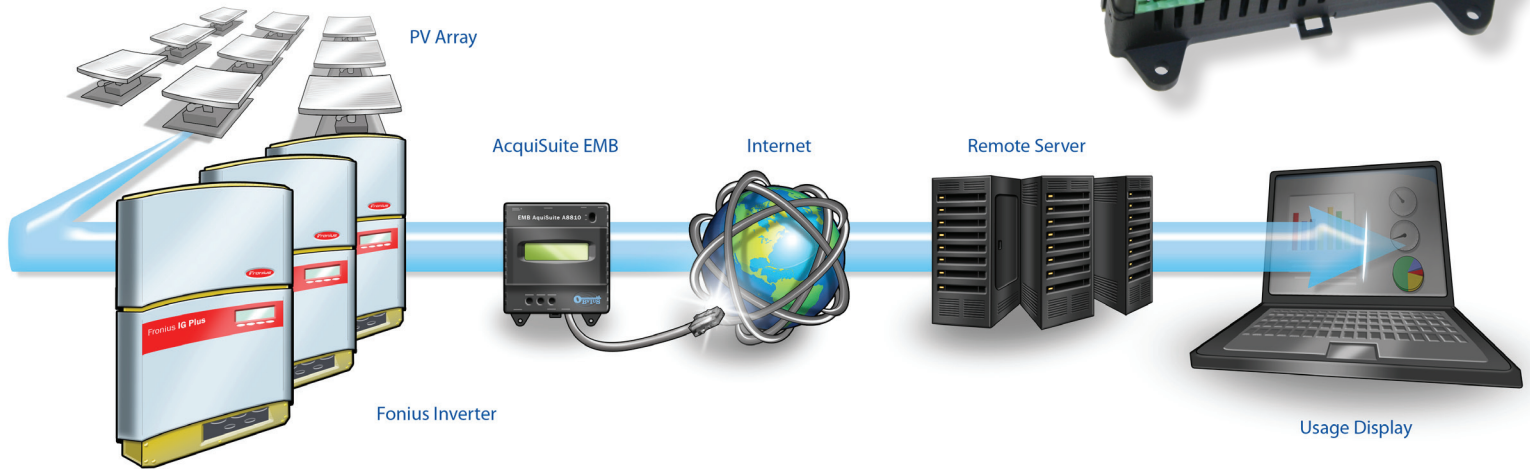




Energy Information Made Obvius

INVERTER MONITORING

AcquiSuite - EMB Data Acquisition Server



FRONIUS 3RD PARTY MONITORING MADE OBVIUS

Obvius makes inverter direct monitoring easy with plug-and-play support for the Fronius IG+ and CL series inverters. Users can collect, access and share key inverter performance information, fault codes and alarming. A single AcquiSuite can collect information from multiple inverters, revenue meters, string monitors and weather stations eliminating the need for additional hardware. Obvius' instant integration with industry leading software monitoring providers makes the AcquiSuite the most cost-effective, scalable and easy-to-use data acquisition solution available to the Solar PV market.

ACQUISUITE FEATURES

- Plug-and-play support for Fronius IG+ and CL series inverters
- Interactive user interface for simple setup and configuration
- Advanced diagnostic tools to monitor inverter performance
- Monitor fault codes, set alarms and view inverter status pages
- Industrial temperature range (-30 to 70C)
- Compact Footprint 4" x 4.25" x 2"
- Web browser interface
- Remote access and options for cellular communications
- Scalable—connect multiple inverters and up to 32 peripheral Modbus devices
 - Revenue / Net Meters
 - String Monitoring
 - Environmental sensors / weather stations

ABOUT OBVIUS

Obvius manufactures data acquisition and wireless connectivity products specifically for energy management. We deliver cost-effective, reliable hardware designed to speed up installation. Our products are based on an open architecture allowing our customers to collect and log energy information from virtually any meter or sensor. The ability to support multiple communication options provides remote access to all your energy information. Founded in 2003, Obvius is located in Hillsboro, Oregon. We serve a global clientele and continue to drive innovation by simplifying data collection.

SOLUTIONS

- Data Acquisition
- Wireless Communication
- Meters & Sensors
- Custom Packaged Solutions
- Integration & Software Partners

INTEGRATION WITH 3RD PARTY MONITORING PARTNERS



HEADQUARTERS

Hillsboro, Oregon

CONTACT US

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AcquiSuite - EMB

Data Acquisition Server

ACQUISUITE—EMB A8810

Obvius' AcquiSuite is an intelligent, flexible data acquisition server that allows users to collect performance data from inverters, combiner boxes, subcombiners, meters and environmental sensors. The AcquiSuite was designed to bridge the gap between Solar PV systems and software monitoring providers. Site performance data has never been easier to collect or more accessible.

DATA COLLECTION

The AcquiSuite collects and logs data from connected devices based on user selected intervals. Data from downstream devices is time-stamped and stored in non-volatile memory. This interval data is stored onboard until a scheduled upload or manual download. Using an Ethernet (LAN) or cellular communication option, users can push or pull data through the web via HTTP, FTP and XML.

INSTALLATION & FEATURES

No software is required. The AcquiSuite can be accessed and configured through any standard web browser. There are several additional features including alarming, network configuration diagnostics, support for USB devices and security provisions. Our integrated meter driver library is designed to speed up installation and lower integration costs through "plug-and-play" connectivity.

STATUS PAGES FOR SIMPLE SYSTEM COMMISSIONING

The screenshot displays two web pages from the AcquiSuite interface. The left page, titled "Fronius Inverters Status and Power Generation", shows a table of instantaneous power generation per node. The right page, titled "Main System Setup Page", displays the "Fronius Gateway Status" with various system parameters and a data log table.

Instantaneous Power Generation per Node (KW) — updated every ~5 seconds							
#1-12	KW	#26-30	KW	#51-75	KW	#76-99	KW
Node 1: --		Node 26: --		Node 51: --		Node 76: --	
Node 2: 0.132		Node 27: --		Node 52: --		Node 77: --	
Node 3: starting-up		Node 28: --		Node 53: --		Node 78: --	
Node 4: 0.130		Node 29: --		Node 54: --		Node 79: --	
Node 5: starting-up		Node 30: --		Node 55: --		Node 80: --	
Node 6: 0.000		Node 31: --		Node 56: --			
Node 7: 0.085		Node 32: --		Node 57: --			
Node 8: 0.127		Node 33: --		Node 58: --			
Node 9: 0.133		Node 34: --		Node 59: --			
Node 10: --		Node 35: --		Node 60: --			
Node 11: 0.138		Node 36: --		Node 61: --			
Node 12: 0.136		Node 37: --		Node 62: --			
Node 13: --		Node 38: --		Node 63: --			
Node 14: --		Node 39: --		Node 64: --			
Node 15: --		Node 40: --		Node 65: --			
Node 16: --		Node 41: --		Node 66: --			
Node 17: --		Node 42: --		Node 67: --			
Node 18: --		Node 43: --		Node 68: --			
Node 19: --		Node 44: --		Node 69: --			
Node 20: --		Node 45: --		Node 70: --			
Node 21: --		Node 46: --		Node 71: --			
Node 22: --		Node 47: --		Node 72: --			
Node 23: --		Node 48: --		Node 73: --			
Node 24: --		Node 49: --		Node 74: --			
Node 25: --		Node 50: --		Node 75: --			

Fronius Gateway Status

Gateway status: OK

Gateway uptime: 1 days, 10 hrs, 22 min, 31 sec
Gateway version: v0.111.0320_5b

USB serial adapter: Fronius Converter USB, vers= 2.00, S/N=A6TEZRPI, VID=101e, PID=000a

Fronius baud rate: 9600 bps

Fronius nodes: 10 inverters detected, 400 total data points

Pipelining: Enabled

Fronius Queries "in flight": 0 out of 111 max

Fronius Query response time: 212 +/-18 ms

Fronius Bytes sent/sec: 1 bytes/sec

Shortest recommended Data Logging Period: 0 min, 20 sec or greater (change Logging Period)

Modbus/TCP status: 10 active connections

Modbus/TCP port: 503

Gateway accessible from: Allow Modbus TCP access from local subnet only (change Modbus/TCP access)

	Total	Last Minute
Frames transmitted:	410564	--
Frames received, OK:	410869	--
Frames received, Bad:	8	0
Protocol errors:	1	0
Data query timeouts:	724	0
Data points spilt:	6969	3
Internal errors:	0	--

Fronius debug information: Errors Only

Pipelining mode: Normal (default, 15 mS)

Buttons: Apply, Cancel, XML, View Fronius Error Log, View Fronius Debug Messages

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Current time: Saturday, March 26 2011 19:36:08 CDT

*Please see A8810 product datasheet or operations manual for product specifications. Call us about product evaluations and industry references.



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