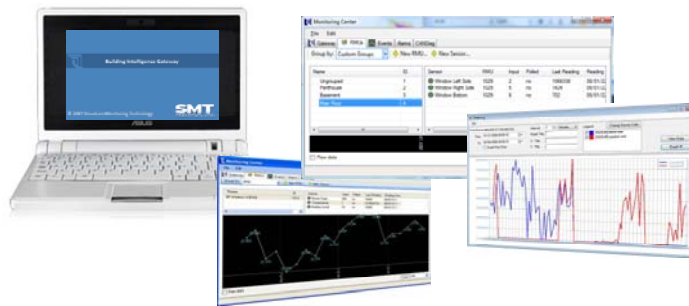


Building Intelligence Gateway



General Description

The Building Intelligence Gateway is a compact yet powerful computer system used to provide continuous monitoring and data collection of distributed sensors used for automated structure monitoring.

The BIG system collects data from a wide variety of sensors located within the monitored structure and provides local analysis of data as well as distribution to a central monitoring database and reporting system.

The BIG system uses Windows XP to provide a familiar and user friendly interface for configuration and local data analysis. The software engine interfaces to both high speed wireless and wired sensors and is suitable for use in high density applications where real-time data of hundreds of sensors is required.

Applications

Building Science Research

- Window and wall module evaluation
- External façade sensing
- Moisture and temperature sensing

Field Applications/Research

- Long term structure monitoring
- Targeted repair monitoring

Roof Monitoring

Features

- Compact design. Fits in standard wall mount cabinets.
- Rugged and portable. Rugged case available for portable and outdoor applications.
- Local Windows XP user interface displayed on 7 inch backlit LCD display.
- Simple configuration. Keyboard and touchpad used for local configuration.
- Solid state storage permits rugged installations and is expandable using the local MMC/SD interface.
- Standard 10/100 Mbit Ethernet and 802.11 b/g wireless.
- USB ports permit expansion and compatibility to 3rd party systems.
- Optional GSM interface to cellular network for installations where internet is not available.
- Interface to 802.15.4 wireless and Controller Area Network wired sensor units.
- Multithreaded communication permits communication to large sensor networks.
- Event handling and alarm processing allows BIG to be used as a standalone monitoring center.
- Displays sensor data in real-time on demand.
- Unique graph manipulation tools available for viewing and scanning large data sets. Advanced graphing functions permit detailed analysis of sensor data.
- Collates sensor data and forwards to monitoring center for storage and further analysis.
- Unique sensor groupings and mass configuration schemes available.
- Real time clock and built in battery backup.

Hardware Specifications	
Operating System	Windows XP
Display	7" with LED backlight
Memory	512MB
Storage	Solid State 4GB
Local Input	Keyboard/Touchpad
User Connectivity	10/100 Mbit Ethernet 802.11 b/g wireless LAN GSM cell network
Expansion	3 USB 2.0 ports MMC/SD card reader
Sensor Connectivity	Wireless 802.15.4 Wired CAN 2.0
Max Distance from coordinator node	Wireless 30m Wired 300m
Power	5200 mAh battery backup 120VAC
Dimension	---mm (L) x --- mm (W) x ---mm(H)
Weight	0.92 kg

Sensor Monitoring Performance

See specific sensor datasheets

Regulatory	
EMC Radiated and Conducted Emissions	FCC Part 15 Class B Industry Canada ICES 003
Safety Requirements	cULus and CE

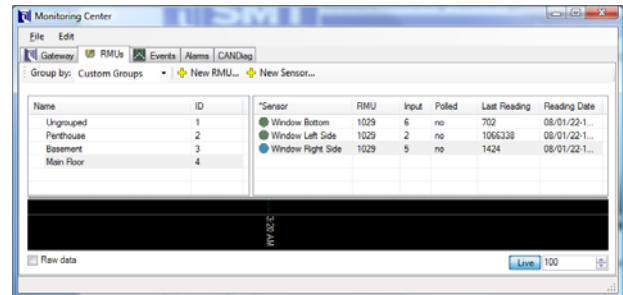


MMC/SD card reader and USB ports

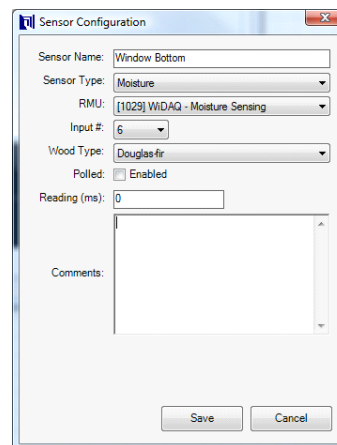


Ethernet and USB port

BIG General Configuration

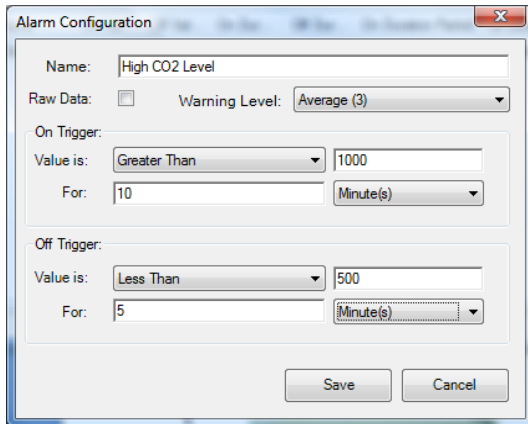


- Compatible sensors discovered on network are automatically added.
- Sensors are grouped according to hardware by default. Custom groupings can be defined.
- Ascending or descending sort can be applied to any column.



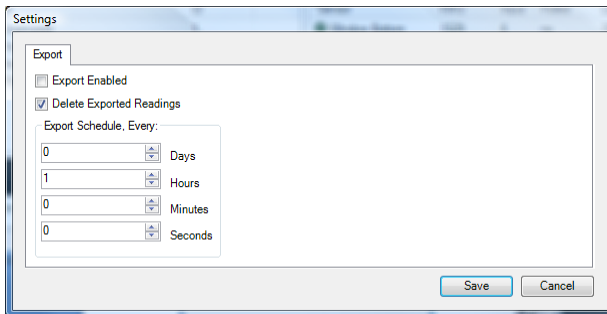
Parameters of each sensor can be easily modified. Batch modifications are possible for applying changes to more than one sensor.

Alarm Configuration



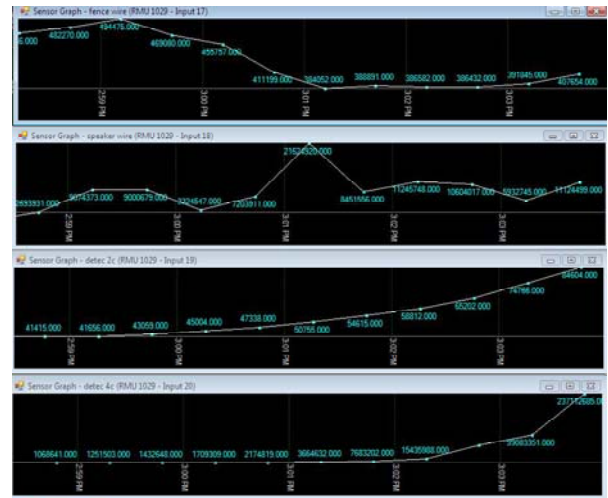
- Specific thresholds can be defined with custom hysteresis. Any number of alarms can be applied to a sensor.
- Sensors exceeding thresholds are listed in the Events tab.

Export Functionality



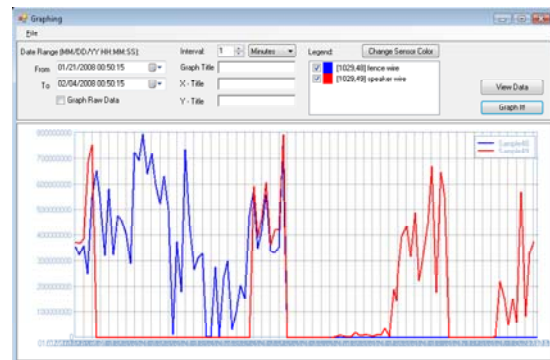
- Specific interval can be defined for forwarding data to monitoring center.
- All data can be easily exported for analysis in custom tools if desired.

Real Time Data Analysis



Sensor data is recorded and graphed in real-time. Using simple mouse controls the x-axis can be scrolled in either direction to view additional data points. X-axis can be easily zoomed in or out by using mouse strokes in the opposite direction.

Advanced Graphing



Sensor inputs can be analyzed using an advanced graphing feature. Graphs can be customized, compared and printed.

Ordering Information	
Standard Gateway	BIG-001
Gateway with CAN	BIG-011
Gateway with 802.15.4	BIG-101
Gateway with CAN And 802.15.4	BIG-111

Specifications are subject to change without notice