



Sensor Manager



Sensor Manager provides real-time monitoring and alerting about the environmental conditions surrounding assets in dense spaces such as data centers. This wire-free solution provides the deployment flexibility you need to monitor environmental conditions dynamically.

Features & Benefits

- ♦ Simple to use web 2.0 user interface
- ♦ Access sensor data in table, map, and graph views
- ♦ Sensor groupings by type and location
- ♦ Policy based alerting
- ♦ Scheduled and Ad Hoc reporting
- ♦ Advanced reporting and charting via BIRT
- ♦ Calculated attributes for advanced data computations
- ♦ Remote location UpConnect capability
- ♦ Extendable Architecture
- ♦ Java Management Extensions (JMX) Support
- ♦ Modbus/IP and BACnet/TCPIP Protocol Support
- ♦ Web based API for easy integration

RF Code Sensor Manager works in concert with RF Code's wire-free environmental sensor tags to provide real-time monitoring and alerting about the environmental conditions surrounding assets in dense spaces such as data centers. Using this wire-free solution, customers have the maximum deployment flexibility needed to monitor critical asset conditions at an extremely attractive price point. Sensor Manager collects information from all types of RF Code wire-free sensor tags. Sensor Manager organizes all sensor information according to sensor type as well as sensor location. All information collected by Sensor Manager can be viewed interactively in real-time via an easy to use web browser based console. All information can be accessed via customized table views as well as graphically via map views. All historical data can be easily organized into reports and graphs using the standard reporting and graphing capability as well as RF Code's Advanced Reporting Module which utilizes the powerful open source BIRT reporting engine. Sensor Manager's sophisticated alert system enables policy based thresholding per sensor type and sensor location. Alert notifications can be communicated via email, SNMP, and HTTP Post allowing for easy integration into other enterprise applications such as workflows and trouble tickets. The role-based user account system makes it easy for system administrators to control who can view what sensor details.

Advanced Data Management

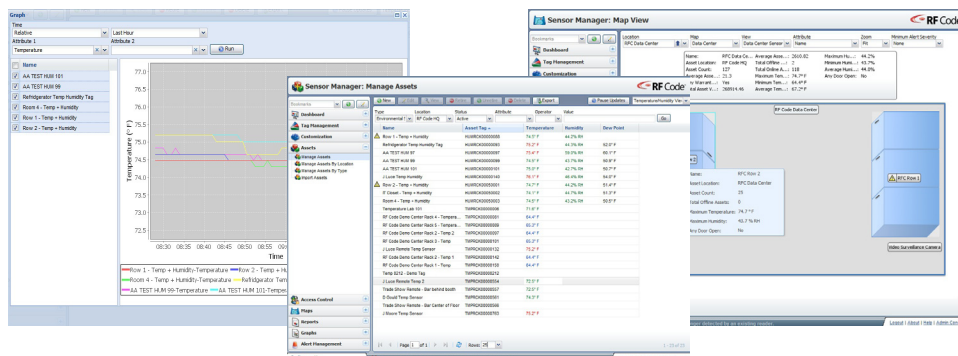
Sensor Manager makes it easy to quickly summarize and process raw sensor information into usable summary data about each location that is being monitored. This is accomplished by a powerful feature called calculated attributes. Calculated attributes work very much like formulas in a spreadsheet allowing administrators to dynamically compute such information as average, minimum, and maximum temperature and humidity on a per location basis. All information computed by calculated attributes can be used in table views, map views, alerts, reports and graphs.

Scalable, Fault-tolerant Communications Architecture

Sensor Manager has the ability to support tens of thousands of readers and millions of sensor tags ensuring that the solution can grow as organization needs grow. Sensor Manager's enterprise architecture enables it to be deployed across multiple sites in different geographical locations. With Sensor Manager's UpConnect feature, remote locations can initiate all contact to the main Sensor Manager server making firewall traversal easy and simple. Finally, Sensor Manager supports remote data store-and-forward capabilities which allow all historical data to be stored locally in the event of a WAN communications issue and then synchronize the data once the connection is restored.

Ready for

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software



Fault-tolerant Communications Architecture

Sensor Manager features enhanced data gathering functionality, including UpConnect support. With UpConnect, remote locations can initiate all contact with Sensor Manager, enabling users with RF Code infrastructure in remote locations to better monitor their assets, even from behind firewalls.

Sensor Manager also supports remote data store-and-forward capabilities, enabling all historical data to be stored locally until a connection with Sensor Manager is successful. This helps to ensure the integrity of all environmental monitoring data, even during a network outage.

Powerful Reporting & Graphing Features

Template based reports and graphs are available at the touch of a button so users can easily organize and summarize any information contained in the Asset Manager database even customized asset schemas and calculated fields. Reports and graphs can be run on a scheduled as well as an Ad Hoc basis and the output can be formatted as PDF, XML or

CSV. Graph and report output files can be delivered via FTP, SCP & HTTP. In addition the Advanced Reporting Module for Sensor Manager which utilizes the powerful open source BIRT reporting engine provides even more powerful and flexible reporting and charting capabilities.

Integration Ready

Sensor Manager is designed to be an open or “integration friendly” platform. A complete set of open API’s are available which would enable almost any application to integrate with Sensor Manager. Support for the Java Management Extensions (JMX) standard enables large organizations to easily use information from Asset Manager with their existing enterprise applications. And with support for the Modbus/IP and BACnet/TCP/IP protocols BACnet Managers and Modbus TCP Masters such as Siemens Apogee, TAC Vista, and Johnson Controls Metasys as well as other BMS (and SCADA) systems that use these protocols can now consume the sensor data available from Sensor Manager for enhanced facility control and monitoring.

RF Code Sensor Manager Specifications

SENSOR MANAGER COMPONENTS

Both components of Sensor Manager (Data Manager & Zone Manager) can run on a single server and this is the default installation. Additional Zone Managers can be installed on remote systems.

OPERATING SYSTEM SUPPORT

Data Manager component	Windows Server 2003 (64 bit only), Windows Server 2008 (64 bit only)
Zone Manager component	RedHat Enterprise Linux version 5 (32 bit & 64 bit), Fedora Core Server version 7 (32 bit & 64 bit), Windows XP Server, Windows Server 2003 (32 bit & 64 bit), Windows Server 2008 (32 bit & 64 bit)

ENTERPRISE CONSOLE WEB BROWSER SUPPORT

The Enterprise Console is supported for use with Firefox 3 and Internet Explorer 8 running on Windows XP or Vista.

SQL DATABASE SUPPORT

PostgreSQL version 8.3 (and higher)	- Local on Linux - Remote on Linux Server or Windows Server
Microsoft SQL Server 2008	Local or remote on a Windows Server.
Microsoft SQL Server 2008 Express	- Local on Windows Server - Remote on a Windows Server - Not suitable for large-scale / production systems