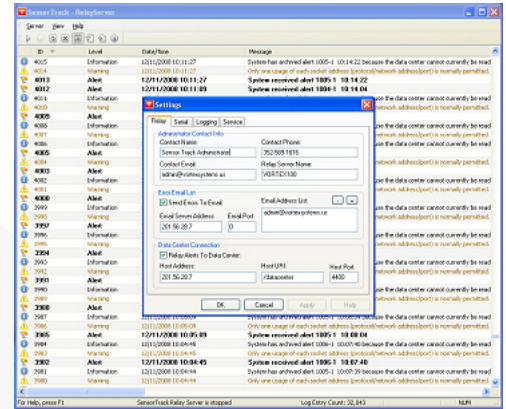


SensorTrack Relay Server is a graphical user interface for our receiver and base station hardware that provides a simple to use software interface for monitoring and storing signals from our sensor units.

This lightweight software application can be installed on a laptop or server as a standalone system log or deployed across many receivers to relay sensor signals to an enterprise database system. Users can customize the application behavior to their specific needs via easy to use property sheets and dialog windows.

Data can be sorted, filtered and exported to spreadsheet programs like Microsoft Excel and Word for further analysis and reporting.



Relay Server runs on Microsoft Windows 2003 and Windows XP operating systems. The software includes two separate software applications: a windows service application and a graphical user interface (GUI) as shown in the accompanying screen shot.

The Windows service application runs behind the scenes and allows the system to continue operating while users are signed off of the computer or have the GUI closed, which is typical for a server environment. The service is responsible for communicating and receiving messages from Vortex Base Station and Receiver hardware. The system communicates to the hardware via a standard RS232 modem cable which attaches to the back side of the receiver hardware. The service records sensor signals received by the hardware in real-time and logs the notifications to a log file with a time stamp and other information about the message such as the sensor unit number and signal code (i.e. Magnetic Right, Magnetic Left, Seismic, etc.). The service application is also responsible for relaying the signal messages to a centralized database, if configured to do so, where signal messages from many Relay Servers are combined as a whole into an Enterprise Database. Relay server can run in standalone mode as well if users choose to do so. In that case, the service will not forward the signal messages onto the Data Center software.

A typical standalone use-case scenario would be from a laptop without an Internet connection being used by a single user in the field. A use-case scenario for relay mode would be when users have many sensors dispersed over wide areas and users want to aggregate all messages into a centralized location. This is common when sensors are located beyond the the range of a single receiver.

The Relay Service graphical interface is the conduit for users to interact with the Windows service application. The GUI (graphical user interface) allows users to configure how the service behaves and view the signal messages received from the hardware. Users can stop and start the service from the GUI, sort and filter the log messages by event type, data/time, message and data column, and export all or part of the log records in a delimited text format that can then be imported into most popular reporting and analysis tools like the Microsoft Office Desktop suite. Users can also configure what COM ports, baud rates and other parameters that should be used to communicate with the receiver hardware. Log file locations and service startup parameters can also be configured. Finally, the service has built in intelligence to alert the user when cables become unplugged to the receiver hardware and/or Internet. In the case where the Relay Server is configured to forward signals to the Data Center software, the system will forward them to the server immediately, or store the messages and automatically forward them at a later time if the Internet connection is lost or the Data Center is off-line.