Global Sensor Networks Status
Integrating Heterogeneous Sensor Networks

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Goals

- Short overview of Global Sensor Networks.
- New wrapper interaction feature.
- Hardware wrappers status.
- New visualization features and database support.
- Release information at sourceforge.
GSN’s overview

Software platform for:

- Rapid deployment of sensor networks.
- Fast integration of heterogeneous sensor networks.
- On-the-fly modification of the sensor networks.
- Supporting heterogeneous sensor networks.
- Declarative configuration.
- Platform for implementing mobility.
- Integrated notification systems.
- Storage management.
- Various optimizations.
The power of sensor networks is when one can *combine and correlate* information obtained from *multiple*, possible *heterogeneous* sensor networks.

**Example**

4 Motes (Light and Temperature)[last 10 seconds], 1 RFID reader[last 1 value], 2 Wireless Cam[last 10 seconds]

```
SELECT camera WHERE
(AVG(Temperature) > 30 OR
RFIDReader.value NOT IN
(SELECT TAG_ID
FROM personnel
WHERE personnel.lab = LSIR ) )
```
Main new feature

Possibility of interaction between virtual sensors and the wrappers.
Now one can do the followings:

- Virtual sensor can interact with the sensors inside the sensor network.
- A virtual sensor can interact with the wrapper of another virtual sensor.
- Using web interface, one can interact with the sensors in the network.
Virtual sensor interacting with local sensor network(s):
Battery powered sound sensors and wired cameras. Sound sensors should save energy.
Camera detects a specific face which triggers the sound sensor network to turn on mote(s).
Virtual sensor which interacts with sensors in remote sensor network(s). A mote in one sensor network can trigger an event on a mote in another sensor network (Common API).
Web-interactive virtual sensor and visualization.
Wrappers available

Existing and new wrappers:

- **New wrappers**: generalize serial port and UDP wrappers in addition to WiseNode Wrapper (Thanks to WiseNet team).

- **Previous wrappers**: TinyOS family motes (e.g., TinyNodes), TI-RFID readers, wireless (AXIS) and wired (OV511 & OV518) cameras.
Other improvements

- Several bug-fixes plus support for MySQL in addition to in-memory database.
- Many performance improvements.
- Project is now in Sourceforge (http://sourceforge.net/projects/globalsn).

Global Sensor Networks

Global Sensor Networks project is an infrastructure for fast deployment and integration of heterogeneous sensor networks. The project supports various types of sensors including TinyOS family motes, Wireless cameras, Wired Camera, ...

Download Global Sensor Networks

Project Admin: ali.salehi
Operating System: (None Listed)
License: GNU General Public License (GPL)

Latest News

(No news at the current time)

Public Areas

- Bugs: (0 open / 0 total)
- Bug Tracking System
- Support Requests: (0 open / 0 total)
- Tech Support Tracking System
- Patches: (0 open / 0 total)
- Patch Tracking System
- Feature Requests: (0 open / 0 total)
- Feature Request Tracking System
- Public Forums: (2 messages in 2 forums)
- Mailing Lists: (0 total)
- CVS Repository: (0 commits, 0 adds)
- Browse CVS

Project Details

- Project Admins: ali.salehi
- Developers: 2
- License: GNU General Public License (GPL)
- Project UNIX name: globalsn
- Registered: 2006-01-20 09:22
- Activity Percentile (last week): 63.74
- View project activity statistics
- View list of RSS feeds available for this project