Sensor Value Formats

Originator: From: Kevin Fall (CS Berkeley) on Wed, 4 Aug 2010

This is not really an RVTEC-specific question, but I'd appreciate any pointers...

I'm looking for recommended meta-data standards for databases of sensor values. The types of sensors of interest include power sensors (think smart meters), local [above water] environment (temp, humidity, light), plus motion of things (like people). Location is essential, and I expect sensor state/calibration is too.

thanks,
- Kevin

From: Dale Chayes (LDEO) on Thu, 5 Aug 2010

Kevin,

The Open Geospatial Consortium has done a fair amount of work on this kind of stuff. I find their formalisms somewhat daunting but they might be helpful.

Transducer Markup Language:
http://www.opengeospatial.org/standards/tml

Sensor Markup Language:
http://www.opengeospatial.org/standards/sensorml

As w/ all XML encodings, the data volume is large but (at least) sometimes worth the bandwidth.

-Dale

From: "Shawn R. Smith" (FSU) on Fri, 6 Aug 2010

Hello Kevin,

Through the SAMOS project, we have developed a fairly extensive list
of metadata that we collect from research vessels related to
meteorological and flow water sensors. Certainly not exhaustive, but
it may be helpful. Take a look at the forms and documentation under
"Step 3" at http://samos.coaps.fsu.edu/html/participate.php. Not sure
if this is exactly what you are looking for, but just thought I would
pass it along.

Also, with input from technicians at OSU and URI, we are developing a
more extensive list of metadata to be collected automatically for
underway meteorological and flow water systems. We hope to present
this schema at RVTEC in Bermuda.

Best regards,

Shawn