

Geomatik - Kolloqium

Do. 23.05 ab 16:15 Uhr University Potsdam, 3.06.H01

Stephan Gensch

Sensor Integration Platform TSB - Connector-Plugins and Mappings for O&M and SWE-Interfaces

One of the major challenges for the German Indonesian Tsunami Early Warning System (GITEWS) was to facilitate integration of a complex and heterogeneous sensor data infrastructure, being prepared for future modifications of both single sensors and sensor systems. Following the paradigm of a Service Oriented Architecture (SOA), the so-called Tsunami Service Bus (TSB) is an integration platform implementing OGC Sensor Web Enablement (SWE) standards and services. It is deployed as a Java EE application hosted within a JBoss Application Server.

The following SWE specifications have been implemented:

- Observations & Measurements (O&M): model for observations and measurements.
- Sensor Model Language (SensorML): model for describing sensor systems.
- Sensor Observation Service (SOS): service for obtaining sensor observations.
- Sensor Planning Service (SPS): service for tasking sensors.

This talk will present the concept of plug-ins for sensor data ingestion and the respective mappings to an internal Objects & Measurements data representation for seismic and cGPS sensor systems and tide gauge sensors. Emphasis is also laid on the standardized client interface for accessing sensor data and sensor Meta data management.

Stephan Gensch is a scientific employee at the Centre for GeoInformation Technologies (CeGIT) at the GFZ Potsdam and a graduate in Computer Science (Dipl.-Inf.) from the IfI at the University of Potsdam. Currently, he is employed in the follow-up educational and counseling program PROTECTS that emerged from GITEWS at the Agency for Meteorology, Climatology and Geophysics (BMKG) in Jakarta, Indonesia. His main occupation is the facilitation of sensor data integration on a network and application level, comprised of seismic, maritime and GPS sensors and sensor systems.



Next talk

30.05.2013 Niels Landwehr: Maschinelles Lernen zur Modellbildung in den Naturwissenschaften
16:15 Uhr GFZ Haus H, Raum VR1

Veranstalter

Prof. Dr. Bettina Schnor, Institute of Computer Science, Universität Potsdam
Prof. Dr. Joachim Waechter, German Research Centre for Geosciences