Sensor Web Achievements
- Eventing & Clients -

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The Wupperverband

Wuppertal

Cologne

Berlin

Münster

Wuppertal

Cologne

Catchment: appr. 800 km²
Residents: appr. 1 Mio.
>25 water infrastructural buildings (reservoirs and sewage treatment plants)
Heavy rain event in Wuppertal (June 2018)
Eventing Strategy

Sensor — Expert System — SWE Database — Eventing API

/events
Eventing Strategy

Sensor → Expert System → SWE Database → Eventing API

Import Skript → /events
Eventing Strategy

Event detection

Sensor → Expert System → SWE Database → Eventing API

Import Skript

/events
Event detection

Sensor  Expert System  SWE Database  Eventing API

Import Skript

/events

Appr. 300 events / day
24k events since last 6 months
Eventing API

• Version 1.0 recently deployed
• Uses concepts of OGC Pub/Sub Standard
• First stable and robust Eventing API since 7 years in the Sensor Web Domain?
• User and user group specific events and subscriptions

Issues
• Medium performance (2.5 secs for latest 100 events)
• Penderous registration process
• Develop helgoland-toolbox components and deploy clients
• Harmonize Series API and Eventing API (Paging, Patterns)
Client development

TaMIS (2017)
Problem:
Penderous re-usability of SWE UI-components

Requirement for library / toolbox
for easy re-usage of SWE-UI components

TaMIS (2017)
npm install @helgoland/core

https://github.com/52North/helgoland-toolbox
Usage in Wacodis
### Usage in TaMIS

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**Lufttemperatur** | **Wassertemperatur** | **Niederschlag** | **Sickerwasser** | **Soilbohrung** | **MQA** | **MQB** | **MQC** | **MQDEF** | **SWD_J** | **SWD_JI** | **Grundwasser** | **Sickerwasser S1, S2, S3, S4** | **Letzten Monat** | **Letzten 3 Monate** | **Letzten 12 Monate** | **S1 HAND** | **S1 AUTO** |

- Neue Werte übernehmen
- Neue Werte verwerten
Usage in TaMIS
Development of a project-platform for data exchange and enhancement of reusable Sensor Web components

Development of the Helgoland-Toolbox with components to visualize water quality

Integration of remote sensing data analysis results with the Sensor Web
Activities until Sep-2019

• How to composite our current series based database schema with redumentary (not continous) campaign observations?

• How to integrate satellite remote sensing data in our sensor web infrastructure?

• How to realize transactional functionality of Timeseries API?

• Improve Clients and Eventing
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