



## **Using JavaScript and the FDSN web service to create an interactive earthquake information system**

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The FDSN web service provides a web interface to access earthquake meta-data (e. g. event or station information) and waveform data over the internet. Requests are sent to a server as URLs and the output is either XML or miniSEED. This makes it hard to read by humans but easy to process with different software. Different data centers are already supporting the FDSN web service, e. g. USGS, IRIS, ORFEUS. The FDSN web service is also part of the Seiscomp3 (<http://www.seiscomp3.org>) software.

The Seismological Observatory of the Ruhr-University switched to Seiscomp3 as the standard software for the analysis of mining induced earthquakes at the beginning of 2014. This made it necessary to create a new web-based earthquake information service for the publication of results to the general public. This has been done by processing the output of a FDSN web service query by javascript running in a standard browser. The result is an interactive map presenting the observed events and further information of events and stations on a single web page as a table and on a map. In addition the user can download event information, waveform data and station data in different formats like miniSEED, quakeML or FDSNxml. The developed code and all used libraries are open source and freely available.