Integrating realtime CTBTO and local seismic data using SEISAN

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This presentation gives examples on how to process and analyse data obtained in realtime from the IMS through the newly developed SeedLink service available on the Global Communications Infrastructure (GCI), using the seismic analysis software package SEISAN. Furthermore, we show how to integrate sensor data and metadata and event parametric data from the CTBTO with locally collected data. SEISAN is used in more than 30 countries mainly at smaller seismic networks or by students or researchers, for processing data from permanent or temporary seismic networks and at a number of NDCs. SEISAN runs on both Windows and Linux and is freely available and open sources (see http://seisan.info). The examples include guides for: 1. Simple configuration of IRIS slarchive software for handling the SeedLink connection and local storage of the realtime data feeds from the IMS in SDS or BUD format. 2. Configuration of SEISAN for analysing data from the SDS in automatic and manual modes. 3. Merge IMS sensor metadata with the SEISAN database. 4. Create local versions of the IDC REB, SEB, SEL, etc. bulletins in SEISAN databases. Signals from teleseismic and local/regional events are used in the examples using the SEISAN virtual network functionality to include IMS data.

Promotional text

We present methods to integrate CTBTO seismic realtime data with local data, which will enable NDCs to improve nuclear test monitoring, using the newly developed SeedLink service available on the GCI and IDC bulletins.

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