



ORFEUS Data Center: addressing Quality Control to obtain high quality seismic waveform data for research.

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ORFEUS Data Centre (ODC) collects and archives high-quality seismic broadband waveform data from European-Mediterranean organizations and provides open access to this data for research purposes by the seismological community. To achieve this, the ODC core activities are directed towards data exchange protocols, data integrity and quality control, data management and services.

ODC collects currently data from more than 500 broadband seismic stations, called the VEBSN (Virtual European Broadband Seismic Networks). The VEBSN, currently comprising more than 50 seismic networks, is a heterogeneous network in terms of seismic instrumentation, data exchange protocols and operations. All waveform data and metadata are unified at the ODC and subject to a variety of Quality Control (QC) techniques, both in time domain and frequency domain, with the goal to provide information to identify instrument failure, timing errors, metadata errors, local noise sources and data availability. Rapid feedback to network operators with QC parameters will enhance both quality and availability of data, while access to QC information will help the seismological community in search for high quality waveform data. This presentation will focus on, and present the current status of QC techniques at ODC, new developments and QC challenges.