

of SeisComP Quality Control Data and Datalogger State of Health information in Zabbix

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The Geophysical Institute in Ecuador uses SeisComP for acquisition of waveforms of around 150 seismometer and accelerometer stations. SeisComP has several modules (SCQC, SCQCV, etc.) that allow the operator to check the quality of the waveforms acquired, nevertheless the module's interfaces could be difficult to use and not very interactive. For easy access to the information of waveform quality control (QC), we developed SCZABBIX, an open source Python module, that sends the QC information created by SCQC to a Zabbix server so we can leverage on the whole set of tools provided by the open source software Zabbix, like interactive graphs, thresholds, triggers, alerts, etc. This allowed operators to detect problems in transmission, estimate parameters like data availability, ping response time, latency, etc. in a quick and flexible way for historical or real time data. Additionally, we developed SOH_ZABBIX, which are some Python modules that capture state of health information from dataloggers like Quanterra, Reftek, etc. and send it to Zabbix so we can test its new triggers for automatic anomaly detection and determine if they could be used to anticipate problems related to battery, temperature, use of disk, etc.

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Promotional text

We present an open source set of tools used at IGEPN to monitor our national network stations during the last three years. It has allowed detection of multiple problems in data transmission and provide basic data quality control.

Oral preference format

in-person

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