SnT 2025 CTBT: SCIENCE AND TECHNOLOGY CONFERENCE
8 SEPTEMBER ONLINE DAY
9 TO 12 SEPTEMBER AT HOFBURG PALACE, VIENNA & ONLINE

Automated Multilingual Seismic Event Reporting Module for SeisComP Pipeline Based on Python for NDCs

LIGHTNING TALK

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- This work presents the result of developing a customized and innovative tool for National Data Centers (NDCs), based on Python.
- This tool automates the creation and sending of seismic event reports, enhancing the efficiency and speed of critical data communication, allowing the generation of information in multiple languages. It provides a flexible and adaptable tool to each NDC's specific needs, fostering cooperation and knowledge exchange, and supporting the Comprehensive Nuclear-Test-Ban Treaty (CTBT).
- The module generates reports adaptable to each NDC's needs, using web technologies like HTML5 and CSS for functional design. A key feature is the configuration of the geographic window of the area of interest using GMT, allowing precise customization. Additionally, the system includes parameterization and automatic report generation, facilitating relevant information collection and presentation without manual intervention once events are detected by SeisComP.
- Reports are automatically disseminated to authorized users through multiple channels, including email and Telegram, ensuring quick and effective data distribution. This development optimizes operational processes within NDCs for nuclear event detection and strengthens response capabilities to seismic events. It improves the efficiency of information management and decision-making during emergencies, while promoting cooperation and knowledge exchange, thereby reinforcing support for the CTBT.
- We cordially invite you to explore our poster and share your insights or suggestions for future enhancements.

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