

# Status of NET-VISA Toward the Operational use for Nuclear Explosion Monitoring

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The International Data Centre (IDC) of the Comprehensive Nuclear-Test-Ban Treaty Organization continues to develop the advanced automatic and interactive software NET-VISA, which uses state of the art machine learning and artificial intelligence techniques to do next generation automatic seismic event detector, based on Bayesian inference. The automatic seismic event bulletins it creates, which are called Standard Event Lists (SEL), are the first IDC products which would indicate the presence of a suspicious explosive incident; thus, the performance of the automatic event detector is key for building the capacity of verification regime. In the present study, we will discuss the results of testing the latest version of NET-VISA, which includes several newly developed features, such as the full pipeline configuration that represents the operational environment, and the incorporation of event screening criteria. The performance of NET-VISA as based on the review of a human analyst is discussed.

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## Promotional text

Is machine learning the key technology for nuclear explosion monitoring?

## Oral preference format

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