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machine-learning tool NET-VISA from cradle to adulthood - The next generation system of the IDC and the SnT process

Wednesday, 26 June 2019 20:15 (15 minutes)

A research concept presented on a poster at the very first SnT conference in 2011 has resulted in a fully-fledged operational software product named NET-VISA. It has become one of the tools used by the International Data Centre (IDC) waveform analysts to review and improve the SEL3 bulletin and produce the REB, one of the finest global seismological bulletins, and the only one to combine seismic and hydroacoustic sensing. The basic scientific concepts will be presented but the emphasis will be on the process of adopting, developing, adapting, testing, bulletproofing, and operationalizing the initial prototype. Extensive off-line testing involving State Signatories experts has shown that one of the expected benefits of NET-VISA – a substantial reduction in missed events compared to Global Association (GA) – has been realized. Currently, NET-VISA generates an automatic bulletin VSEL3, in parallel to SEL3. To take advantage of the reduced missed event rate, only the events which are complementary to the reviewed SEL3 are presented to the analysts. VSEL3 has been in place since January 2018 and tracing the origin of the REB events confirmed the significant reduction in missed events. If sufficient confidence is established, NET-VISA will replace GA in producing the SEL3.

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