



ID: P4.1-294

Type: e-Poster

NDC testing of the NET-VISA application integrated with SeisComp3

Friday, 2 July 2021 11:00 (15 minutes)

The results of testing, at the Australian NDC, of the NDC-in-a-Box (NIAB) release containing the NET-VISA associator integrated with SeisComp3 (SC3) are presented. The aim of this work was twofold: First to test how well the NIAB release was able to reproduce the VSEL3 bulletin produced by the International Data Centre (IDC) using data from the IMS network of stations. Second, to use an updated version of the NET-VISA software that allowed integration of non-IMS stations within NIAB to examine if performance improved in areas of interest to the NDC. In both cases the scdfx detector was used.

Testing showed that the NIAB release emulated the VSEL3 bulletin to a satisfactory extent. The improvement in monitoring threshold gained using NET-VISA integrated with non-IMS stations is reported for the Australian and another region. In Australia the earthquake catalogue was the ground-truth to test the performance of the automatically generated NET-VISA bulletin. The automatic bulletin from NIAB contained a similar number of earthquakes to the Australian catalogue and the automatic events had locations within 2 degrees of the reviewed locations. In some parts of Australia, the NET-VISA associator built more mining related explosions than the automatic bulletin used for the reviewed bulletin.

Promotional text

Evaluation of NET_VISA with non-IMS stations

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Session Classification: T4.1 e-poster session

Track Classification: Theme 4. Performance Evaluation and Optimization: T4.1 - Performance Evaluation and Modelling of the Full Verification System and its Components