

and Insights on Manually Added Events by IDC Analysts in the Reviewed Event Process

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The Standard Event Lists SEL1, SEL2 and SEL3 are automatically produced one, four and six hours, respectively, after the waveforms arrive at the International Data Centre (IDC) from the International Monitoring System (IMS) stations. The IDC analysts then interactively review SEL3 to generate the Late Event Bulletin (LEB), based on which the Reviewed Event Bulletin (REB) is being formed. Comparison of the SEL3 and LEB shows that about 20% of the LEB events are not present in the SEL3 and are added manually by the IDC analysts (SEL3 and LEB events are matched using the database field evid, the unique event identifier that is maintained even when the event parameters are modified). These events are commonly referred to as “missed” (by the automatic system) events. One of the ways to reduce the number of missed events is through configuration parameter optimization. Python scripts were developed to spot missed events and store them in a separate MySQL database, specifically created for in-depth analysis of such events parameters. Possible causes of missed events have been investigated based on a statistical analysis of the event parameters and geographical distribution to further improve the performance of IDC’s automatic data processing.

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Promotional text

This work aims to determine the main factors behind missed events by comparing events with SEL3 and LEB in the IDC database. Possible factors causing missed events were discussed using statistics on the missed events, which are helpful for the IDC data processing system.

Oral preference format

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