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PHIVOLCS-VDAS: Adaptation of the wovodat schema for the volcano monitoring records of the Philippine

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The World Organization of Volcano Observatories database (WOVOdat) schema, conceptualized in the 2000 IAVCEI meeting at Denpasar, is currently under pilot adaptation in the Philippine Institute of Volcanology and Seismology (PHIVOLCS) in collaboration with the WOVOdat Project of the Earth Observatory of Singapore (EOS). A stand-alone version of the database package, of which the back-end database and core scripts were coded by the WOVOdat Project in Open Source MySQL and PHP, respectively, was operationalized in early 2012, enabling web-access of volcano monitoring data in the PHIVOLCS Intranet. Simply called the Volcano Database System, or VDAS, the adapted database strictly follows the WOVOdat-prescribed format for all table fields and their relationships, particularly the hierarchical parent-to-child data structure Volcano -> Network -> Station -> Instrument ->Data. The WOVOdat adaptation for VDAS began with customization of the database structure in order to incorporate records of volcanological data that did not fit or exist in the standard table fields. During this phase, one rule observed strictly was the addition of fields (columns) to a particular table without editing or deleting the standard structure. Volcano catalog numbers or CAVWs assigned by the Smithsonian Institution (GVP) database were adapted and new CAVW numbers were assigned to volcanoes not included in the database. Conversion scripts for standardizing data to WOVOdat formats were customized by the WOVOdat Project for VDAS to enable the automation of data population.   Other packages adapted were visualization tools (beta version) and log-in security features. Data population into VDAS is on-going and functional tests on conversions scripts have been undertaken successfully. Presently, about 20 percent of legacy volcano monitoring data for Mayon, Bulusan, Taal, Kanlaon, Pinatubo and Hibok-Hibok Volcanoes have been uploaded to VDAS. Online data entry forms are now being scripted and planned in order to support data population from frontline Observatories on these volcanoes.