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OpenADB - An open database for multi-mission altimetry

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OpenADB is an open data base for satellite altimeter data and derived high-level products administrated and maintained by DGFI. It is designed to serve both, users with little experience in satellite altimetry, and scientific users evaluating data, generating new products, models and algorithm. The database provides basically two different data structures, one organized sequentially in time (MVA), the other re-organized or stacked for time series analysis (BIN). In the MVA (multi version altimetry) structure all pass files are decomposed into parameter files, subsets which can be more easily updated without the need to replace the complete pass file. OpenADB can keep several versions of one and the same parameter. The user can extract data with number, sequence and version of parameters defined by himself. Moreover, there are tools for experienced users, allowing to decompose pass files, to (re-)combine individual record parameters to a new parameter file and to perform on-the-fly computations with the parameters. The BIN data consists of sea level anomalies and corrections. The data holdings comprise data from nine altimeter systems. They are made homogeneous by using a common reference ellipsoid, the same time scale, and identical geophysical correction models. Mission specific correction models and new orbit data are used to keep the data up-to-date. Data access is provided by a browser interface. Registered users can define their own area of interest, individual record formats, and submit and control their orders.