



Towards an online database for relative sea-level indicators: storage and visualization

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Sea-level indicators (SLIs) represent archaeological/fossil samples or geomorphological features with evidence of the relative sea-level (RSL) at the time of deposition or formation with respect to today's sea level. Usually, SLIs are analysed individually and the studies extend over several decades. As a consequence, the results are spread in the literature covering various disciplines, such as archaeology, ecology, glaciology and palaeontology. For geophysical applications especially in the inference of glacial-isostatic adjustment (GIA), the combination of different data as the extraction of process-related information is mandatory. Therefore, compilations exist in review and research articles dealing with GIA, where incomplete information on the individual SLIs is listed. Over the last decade, a database of SLIs was built up at GFZ for the inference of the GIA process. Due to the often heterogeneous information regarding the individual SLIs, the storage in a relational database system was considered most suitable. This type of system enables the storage in individual tables and, thus, allows to stay more close to the original representation of the data. Furthermore, an individual or combined access and analysis of the data as the extraction of process-related information is possible using an appropriate query language, such as SQL. The second advantage is an easy connection to a graphical interface. In order to analyse the data interactively, we decided in the project SLIVISU at GFZ for a JAVA-based analysis tool and a visualization in Google Earth. We will show some applications of the software and discuss further steps towards a web-based interface.