



smartVCD – A novel tool for a digital Visual Core Description based on the Drilling Information System (DIS)

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Lithological core description is a key component of geoscientific drilling projects, especially in the International Continental Scientific Drilling Program (ICDP). Although most analyses applied to drilling sample materials have made huge engineering and digitalization progress during the last years, initial core description is commonly still carried out in an analogue way on paper. To go one step further, we developed software for on-site digital core description using digital core scans in a graphical form on a computer screen as an “electronic sheet of paper”. This smartVCD has been tested for the first time in the field during the ongoing Oman Drilling Project.

The software guides users intuitively into core description and is directly connected to ICDP’s Drilling Information System, ExpeditionDIS. This allows for storing all selected attributes of a graphical lithological description directly into the DIS database. With the parallel illustration of the digital core scans and the lithological description the software is not only a benefit for the data management but also for initial scientific investigations during drilling projects.

The smartVCD prototype used in the Oman Drilling Project served as a case for demonstrating the general feasibility and for defining the next step for its future development. Key will be an interface for an uncomplicated adaptation and configuration according to changing requirements on lithological descriptions.