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The DIS, the CODD, IGSNs and DOIs: Tools you need to succeed with your ocean and continental scientific drilling project

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Scientific ocean drilling over the past >40 years and corresponding efforts on land (by now for more than >20 years) has led to the accumulation of an enormous amount of valuable petrophysical, geochemical, biological and geophysical data obtained through laboratory and field experiments across a multitude of scale-and time dimensions. Such data can be utilized comprehensively in a holistic fashion, and thereby provide base toward an enhanced “Core-Log-Integration”, modeling small-scale basin processes to large-scale Earth phenomena, while also storing and managing all relevant information in an “Open Access” fashion. Since the early 1990’s members of our team have acquired and measured a large dataset of physical and geochemical properties representing both terrestrial and marine geological environments. This dataset cover a variety of both macro-to-microscale dimensions, and thereby allowing this type of interdisciplinary data examination. Over time, data management and processing tools have been developed and were recently merged with modern data publishing methods, which allow identifying and tracking data and associated publications in a trackable and concise manner. Our current presentation summarizes an important part of the value chain in geosciences, comprising:
1) The state-of-the-art in data management for continental and lake drilling projects performed with and through ICDP’s Drilling Information System (DIS).
2) The CODD (Code for Ocean Drilling Data) as numerical-based, programmable data processing toolbox and applicable for both continental and marine drilling projects.
3) The implementation of Persistent Identifiers, such as the International Geo Sample Number (IGSN) to identify and track sample material as part of Digital-Object-Identifier (DOI)-tagged operation reports and research publications.
4) A list of contacts provided for scientists with an interest in learning and applying methods and techniques we offer in form of basic and advanced training courses at our respective research institutions and facilities around the world.