Application of the IGSN for improved data - sample - drill core linkage

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The large number of samples resulting from geoscientific research creates a need for a system that has the ability to allocate unique identifiers for individual samples (cores, core sections, rock samples...). In this abstract we present a solution that utilises the IGSN (1) Registry Metadata Store (2) to automatically register unique IGSN's for samples and submit corresponding metadata.

An automated workflow has been set up to register IGSN's and submit metadata for cores stored for example at the IODP (3) Bremen Core Repository (BCR) in Bremen and the BGR National Core Repository for Research Drilling in Berlin, and partly transfer the core information to the GESEP (4) Virtual Core Repository (5).

Detailed metadata for these cores are stored in a DIS (6), from which xml files containing all necessary information for IGSN and metadata submission are automatically generated. These files are automatically processed to extract and register the unique IGSN as well as the corresponding metadata. After this parsing process, the IGSN registration and metadata submission processes are triggered by posting the appropriate IGSN API (7) service calls.

1. International Geo Sample Number
2. https://doidb.wdc-terra.org/igsn/
3. Integrated Ocean Drilling Program / International Ocean Discovery Program
4. German Scientific Earth Probing Consortium
5. http://www.gesep.org/infrastruktur/kernlager/portal/
6. Drilling Information System
7. https://doidb.wdc-terra.org/igsn/static/apidoc