



The German National Antarctic Data Center



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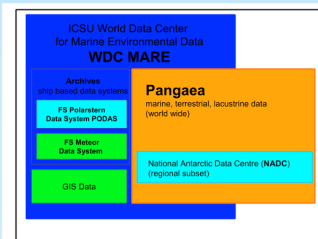
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The German NADC is responsible for co-ordinating Antarctic data management within the Germany, and provides the national focal point for the ADDS

Organisation

Using the ICSU World Data Centre (WDC) MARE with it's Pangaea system as a framework for the NADC Germany (<http://www.wdc-mare.org>)



Status

35,435 data sets from Antarctica (1 Jul 2006)

Function

- Getting data and metadata from scientists and
- making them available under the terms of reference of a WDC.
- Integrating Pangaea into the international frameworks of AMD and GCMD and into
- other meta data and data systems.

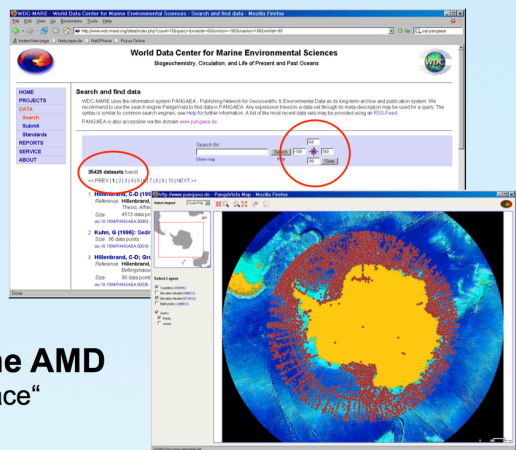
Technology

A Web service is a software system identified by a URI, whose public interfaces and bindings are defined and described using XML. Its definition can be discovered by other software systems. These systems may then interact with the Web service in a manner prescribed by its definition, using XML based messages conveyed by Internet protocols.
<http://www.w3.org/TR/ws-gloss>
Web Services Architecture, February 2003

Technology for an interface to the AMD

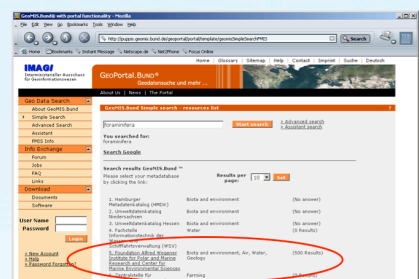
W3C web services with a „Standard Interface“

- ISO standards ISO 19115 and ISO 19139
- DIF
- OAI Protocol for Metadata Harvesting (OAI-PMH) (<http://ws.pangaea.de/oai/>)



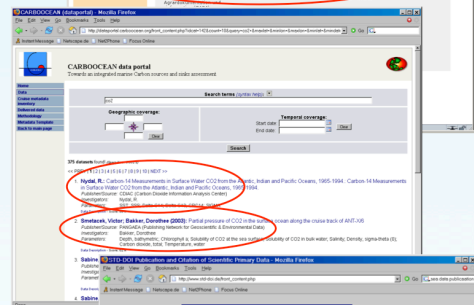
Interface Examples

- Pangaea as part of the geo-spatial metadata information system (GeoMIS.Bund®) of the Federal Government
- Carboocean Portal (<http://www.carboocean.org>)



Challenges

- ISO standard 19139 (XML Display) only in draft version
- Slow international co-operation for development of standards of web services



Questions

- Granularity of metadata (solution in co-operation with GCMD)
- Scientific workflow (increase the delivery of scientific data):
 - From science plan to scientific data archives
 - Publication and citation of scientific primary data (<http://www.std-doi.de>)
- Distributed versus central metadata/data systems

