Acquiring High Quality Research Data for Publication

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How to acquire high quality data?

Reputation If a repository has the reputation of accepting only high quality research data and the visibility of its publications is high, a publication there is of great value for the researcher.

Reliability If the organisation which is running the repository is known to be well-financed and has a long tradition, researchers will believe that their data are stored safely and for the long term.

Process If the submission and quality assurance process is well documented and user-friendly it will engender trust and lower the workload for potential submitters. [Hense and Quadt, 2011]

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The project 'Publication of Environmental Data'

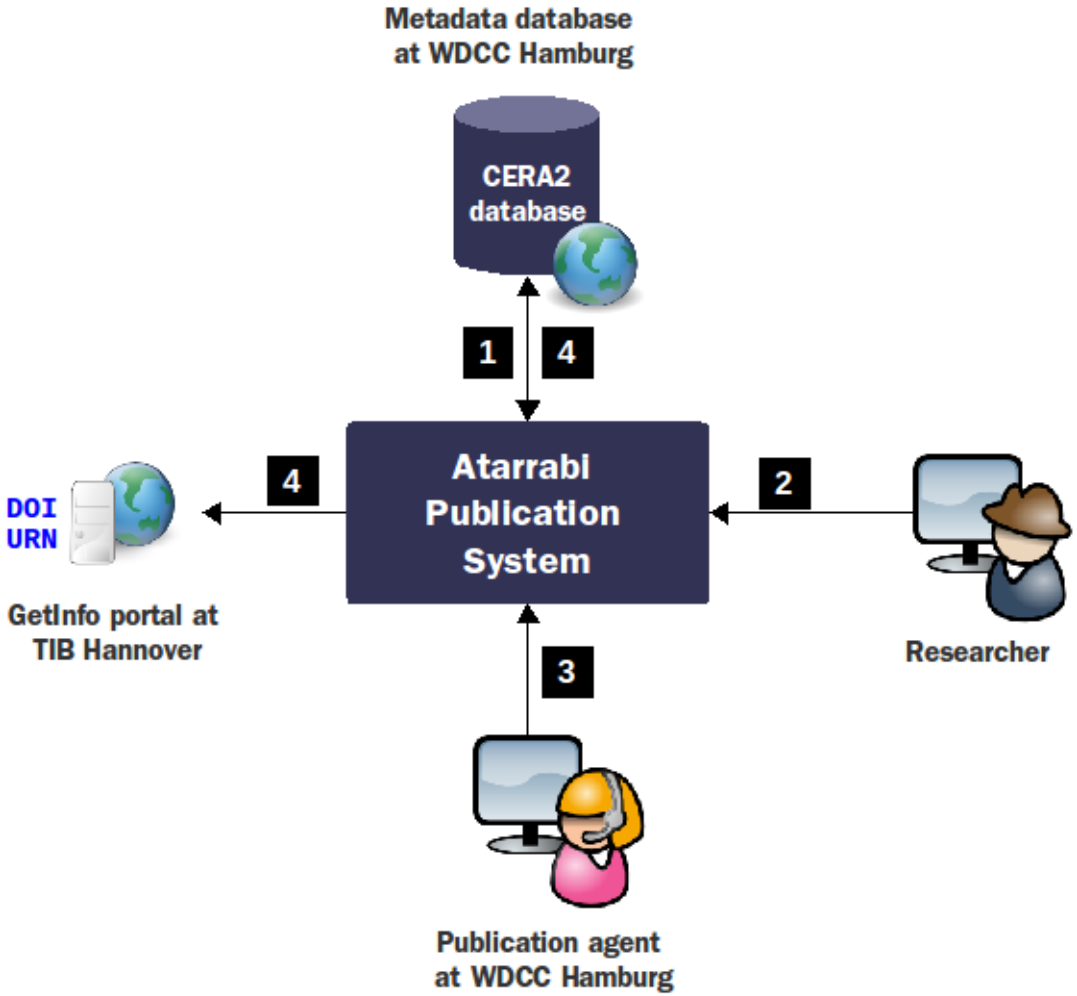
Funding DFG, April 2009 – March 2012

Partners

- Bonn-Rhine-Sieg University oAS
- Bonn University, Meteorological Institute
- German Climate Computing Center

Objectives

- Definition of a standard procedure for publication of data including documentation of quality assurance actions.
- Development of a workflow system for the researcher and the publication agent.
- Integration into the Word Data Center for Climate (WDCC).
- Generalisation of the defined processes for other environmental sciences.


Metadata database
at WDCC Hamburg
CERA2
database
1
4
DOI
URN
4
Atarrabi
Publication
System
2
GetInfo portal at
TIB Hannover
Researcher
3
Publication agent
at WDCC Hamburg

Process Overview

- General
- Authors
- DOI Contact
- Contributors
- Relations
- **Coverage**
- Instruments
- Quality
- Summary

Spatial and Temporal Coverage for cops_adlr_data

Please choose location and enter spatial and temporal coverage.

Locations

Selected location

ARM Southern Great Plains
Latitude [°]: 36.61 to 36.61
Longitude [°]: -97.49 to -97.49

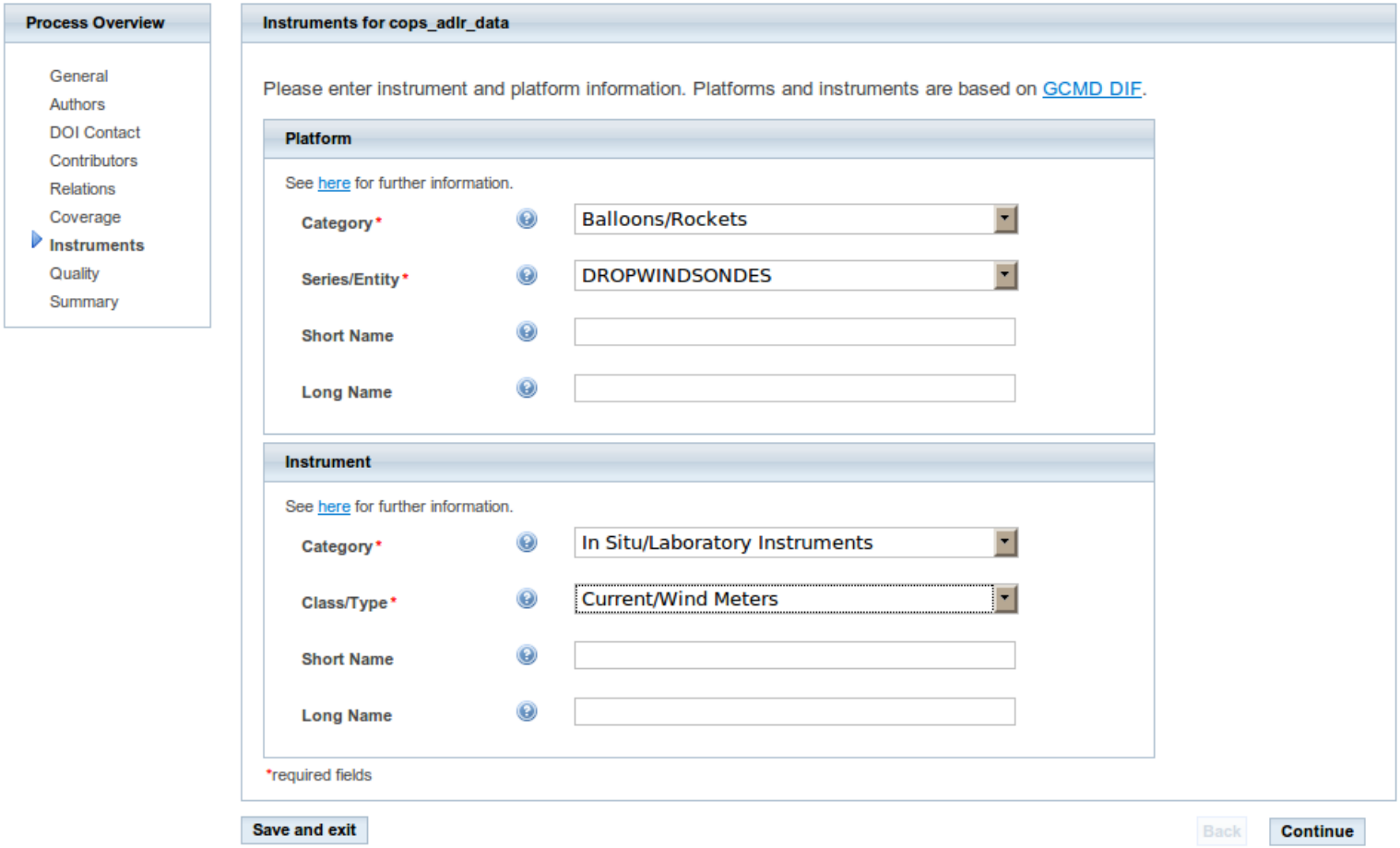
Show in map | Add Location | Location: n/a

Find | Clear

Locations	Action
AMF site in Black Forest, Germany Latitude [°]: 32.54 to 32.54 Longitude [°]: 9.39 to 9.39	Select Show
ARM North Slope of Alaska (Barrow) Latitude [°]: 71.32 to 71.32 Longitude [°]: -156.62 to -156.62	Select Show
ARM Tropical Western Pacific (Darw... Latitude [°]: -12.43 to -12.43 Longitude [°]: 130.89 to 130.89	Select Show
ARM Tropical Western Pacific (Manu... Latitude [°]: -2.06 to -2.06 Longitude [°]: 147.43 to 147.43	Select Show
ARM_NSA_Atqasuk Latitude [°]: 70.47 to 70.47 Longitude [°]: 202.59 to 202.59	Select Show

Next results

Map View


Process Overview
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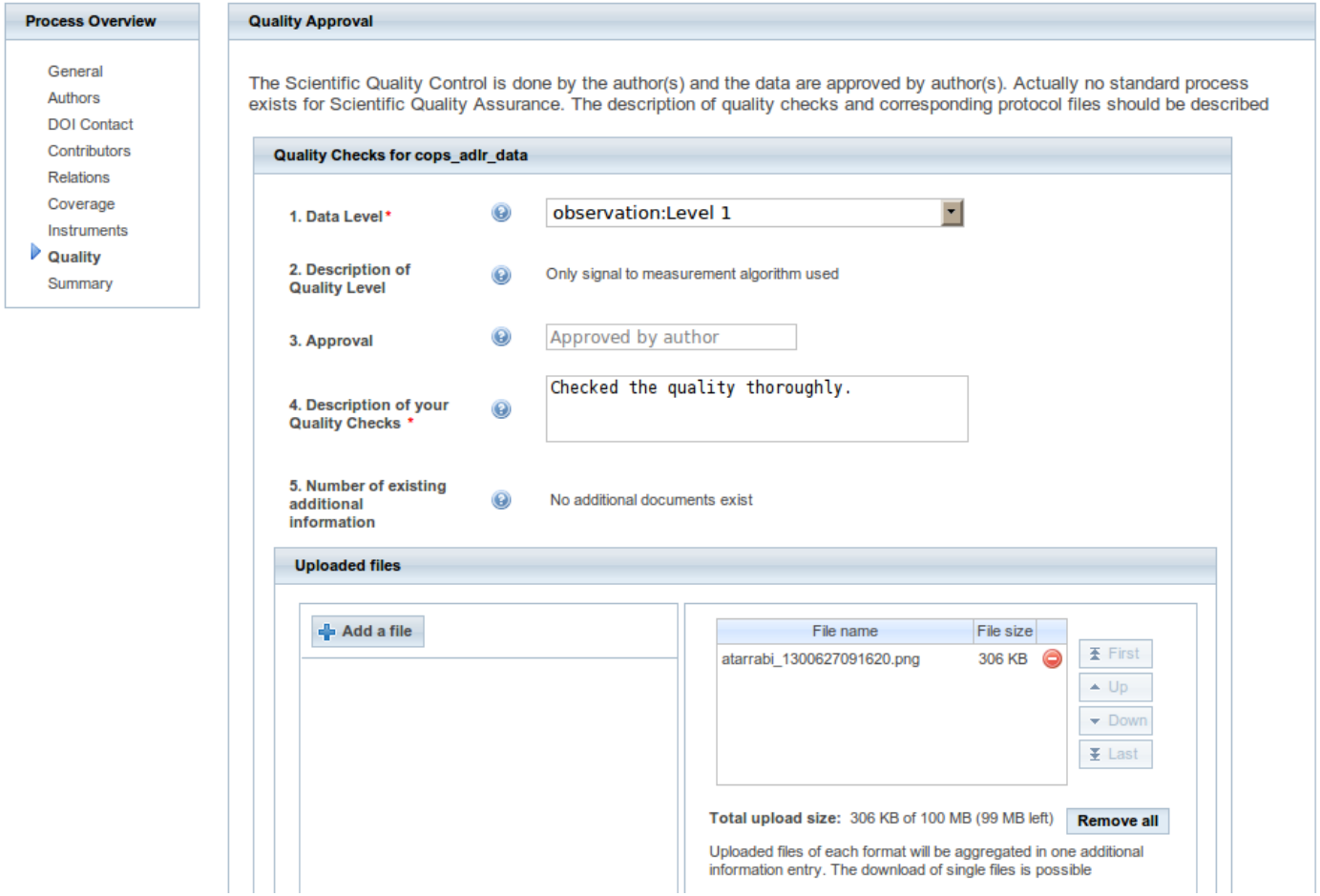
Instruments for cops_adlr_data
Please enter instrument and platform information. Platforms and instruments are based on GCMD DIF.
Platform
See here for further information.
Category*
Balloons/Rockets
Series/Entity*
DROPWINDSONDES
Short Name
Long Name
Instrument
See here for further information.
Category*
In Situ/Laboratory Instruments
Class/Type*
Current/Wind Meters
Short Name
Long Name
*required fields
Save and exit
Back
Continue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Quality Approval
The Scientific Quality Control is done by the author(s) and the data are approved by author(s). Actually no standard process exists for Scientific Quality Assurance. The description of quality checks and corresponding protocol files should be described
Quality Checks for cops_adlr_data
1. Data Level *
observation:Level 1
2. Description of Quality Level
Only signal to measurement algorithm used
3. Approval
Approved by author
4. Description of your Quality Checks *
Checked the quality thoroughly.
5. Number of existing additional information
No additional documents exist
Uploaded files
Add a file
File name
File size
atarrabi_1300627091620.png
306 KB
First
Up
Down
Last
Total upload size: 306 KB of 100 MB (99 MB left)
Remove all
Uploaded files of each format will be aggregated in one additional information entry. The download of single files is possible

Results & Next Steps

Results

- January 2011: start of production for CMIP5 data.
- April 2011: start of production for observational data.

Next Steps

- Gather user feedback and optimize the existing user interface.
- Implement Publication Agent's part.
- Implement TIB registration part.
- How to peer-review data?

References I

Andrew Treloar, David Groenewegen, and Cathrine Harboe-Ree. The data curation continuum. *D-Lib Magazine*, 13(9/10), 2007. ISSN 1082-9873. doi: 10.1045/september2007-treloar. URL http://www.dlib.org/dlib/september07/treloar/09treloar.html.

Jens Klump. Anforderungen von e-Science und Grid-Technologie an die Archivierung wissenschaftlicher Daten. *nestor-materialien 9*, 2008. URL http://edoc.hu-berlin.de/docviews/abstract.php?id=29641.

Andreas Hense and Florian Quadt. Acquiring high quality research data. *D-Lib Magazine*, 17(1/2), 2011. ISSN 1082-9873. doi: 10.1045/january2011-hense. URL http://www.dlib.org/dlib/january11/hense/01hense.html.