IGB
Leibniz Institute of Freshwater Ecology and Inland Fisheries

FRED Workshop

IGBs data storage environment

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Research Data Management

encompasses all methods and procedures to preserve the value of research data in long term

RDM Fair

- **F**indable
- **A**ccessible
- **I**nteroperable
- **R**eusable

Components @ IGB

- CTP Data Management
  - Intranet
  - data@igb-berlin.de
- FRED
- CONNY
- GeoNode
- GitLab

What is FRED?

Freshwater **R**esearch and **E**nvironmantal **D**atabase

FRED is IGBs central repository to exchange, archive and publish research data.

What is FRED?

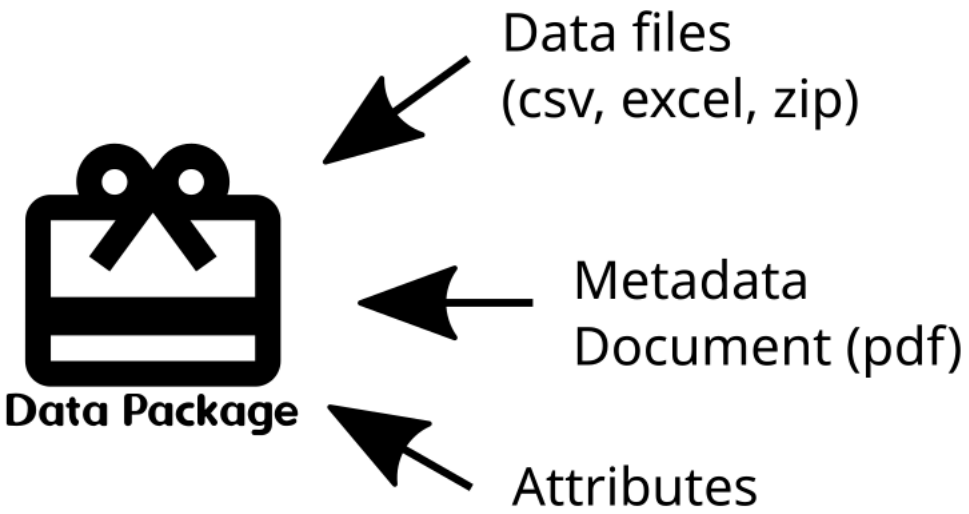
https://fred.igb-berlin.de

To login, please use your central account data (like e-Mail or windows login).

Accessable for external users. They can have accounts too for cooporational work.

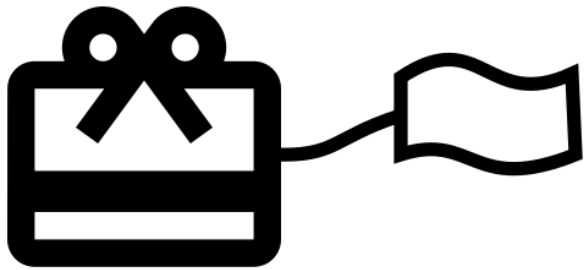
Structure of FRED

The key concept is called a Data Package!



Attributes of a package

- studysite
- sampling location
- time information (from till, frequency)
- parameter
- methods
- contact person
- related publications



Rights on a package

Not every data you put into FRED are automatically open. But the Metadata attributes are!

Rights on a package

package level

- read
- edit
- grant

Can be assigned to certain persons or a group.

document level

- open
- restricted

A document which is open, overrules the package level settings!

Search and find data in FRED

- free text search
- search on map
- search by attributes
  - Studysites
  - Samplingsites
  - Parameter
  - Species groups

Upload Data to FRED

- create package
- upload data and metadata
- set attributes
- set contact persons and allocate a license
- allocate a DOI

There is a step by step assistance tool - currently under development.

DOI Concept

- DOI Service provided by DataCite.org
- easy to cite in a paper
- FRED provides the package site as a landing page for the DOI
- FRED provides DOI versioning for one package
- FRED generates an machine readable (XML) metadata document to enhance interoperability

Connectivity Database CONNY

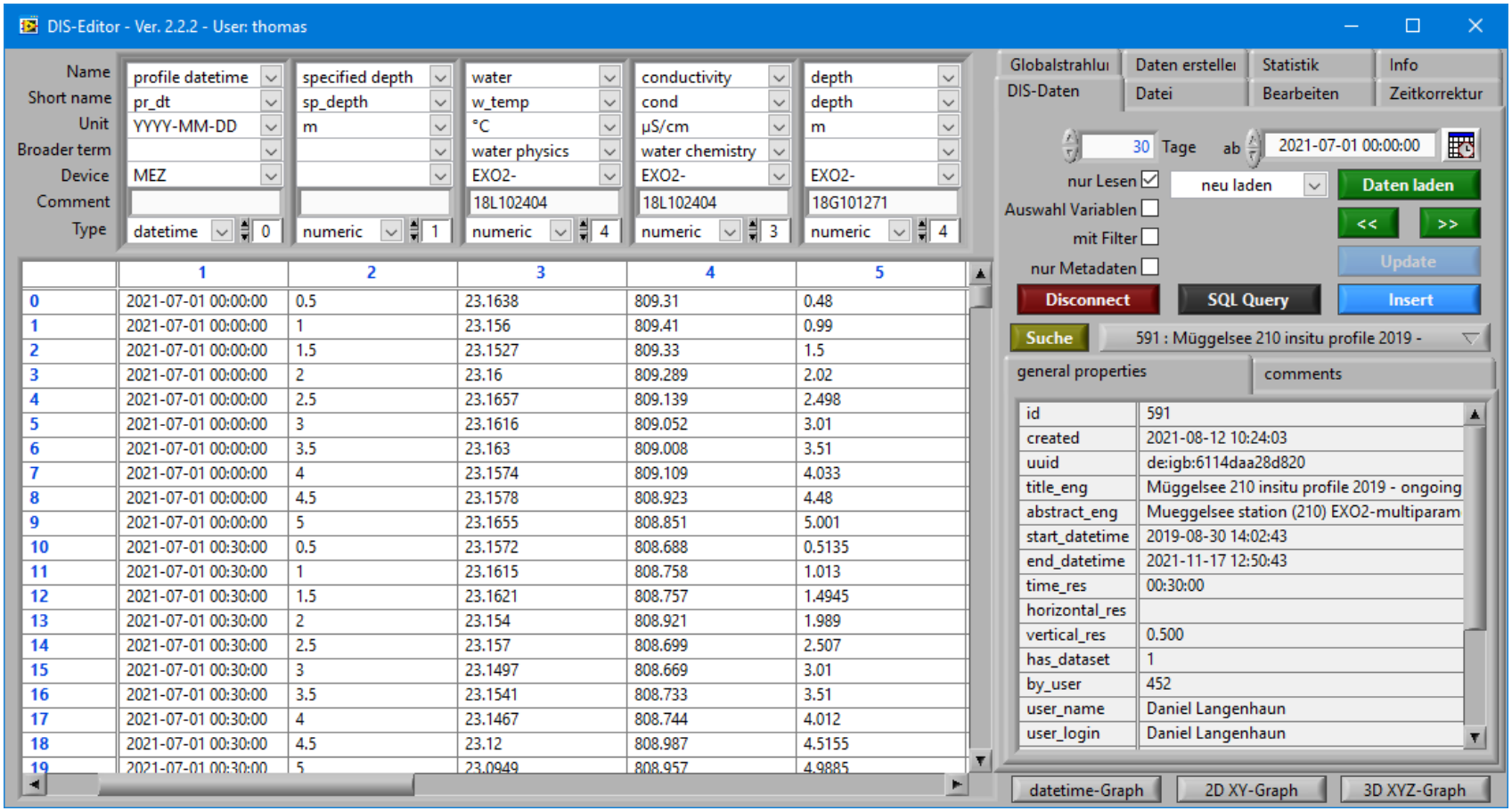
managing RAW data

- key concept is a time series measurement data
- data are stored directly in a postgreSQL database which is accessable wihthin IGB
- can be connected to measurement equipment
  - Measurement stations Mueggelsee, Arendsee, Stechlin
  - LakeLab Neuglobsow
  - public survey - Boddenhecht project

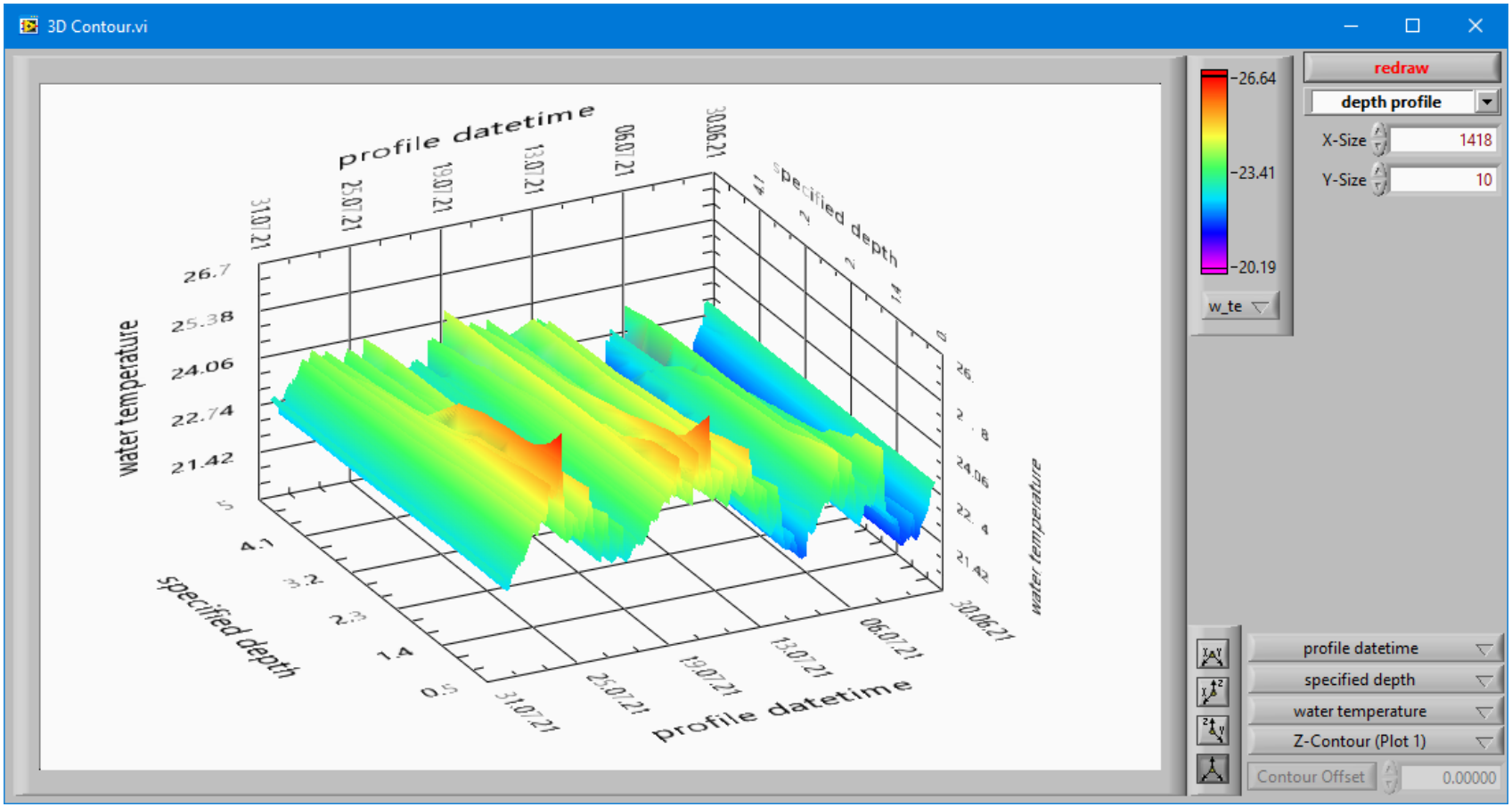
CONNY

- Offer tools for quality review DIS-Editor
- connect your own R or Python scripts to analyze data
- FRED integration
- connect on websites or mobile apps

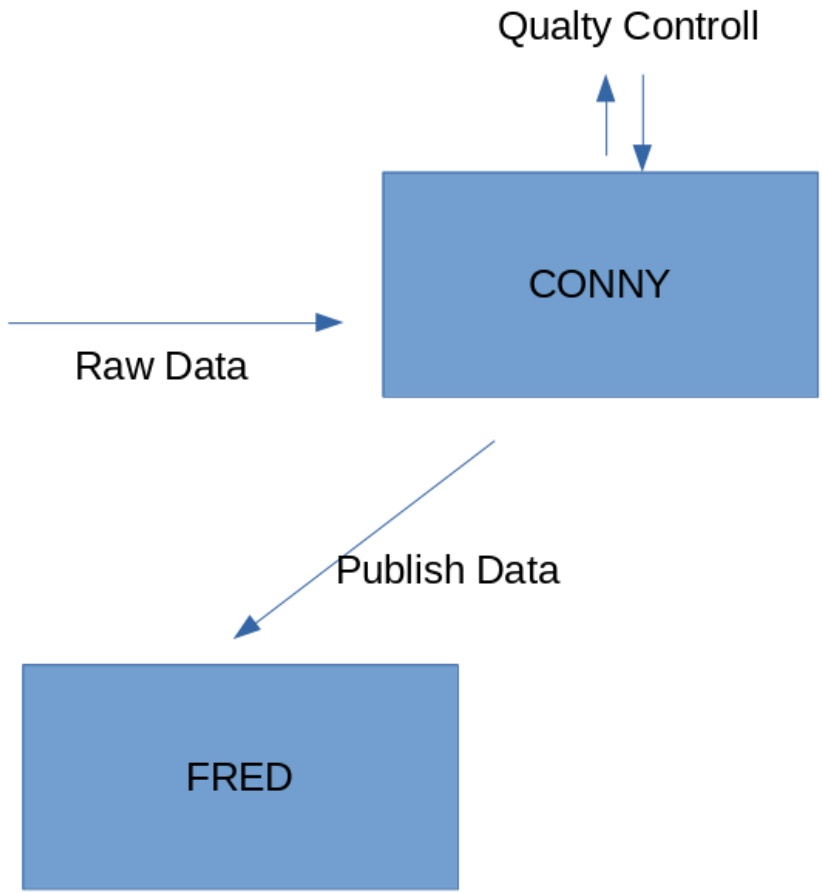
CONNY - DIS Editor



CONNY - DIS Editor

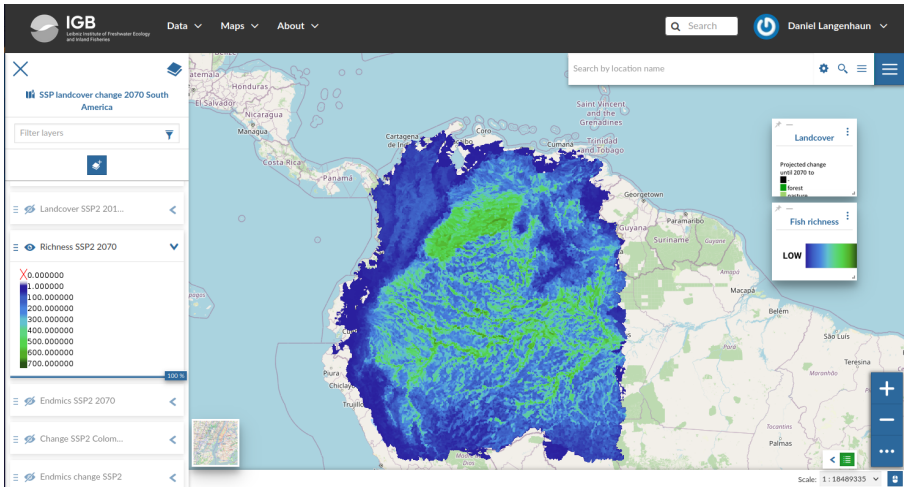


Workflow



Geonode

- RasterLayer
- Vectorlayer
  - Polygons
  - Polylines
  - Points
- Maps (composition of layers)



Geonode

geo.igb-berlin.de

Geonode items can be referenced in FRED packages.

Support

data@igb-berlin.de fred@igb-berlin.de

workshop

To create a real package

fred.igb-berlin.de

Just playing around

https://its-fred2.igb-berlin.de