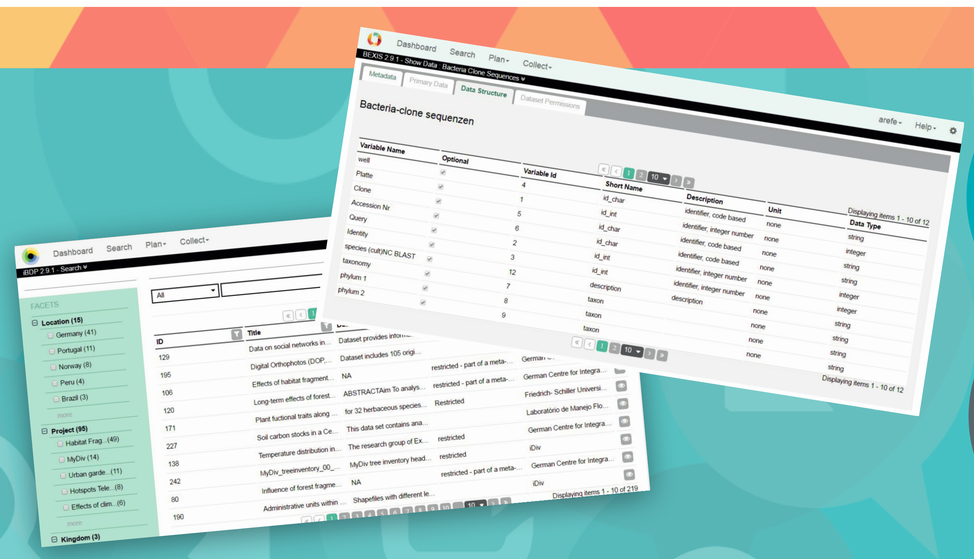

BEXIS

RESEARCH DATA MANAGEMENT

A Generic and Modular Data Management Platform

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Abstract

BEXIS 2 (http://bexis2.uni-jena.de) is an open source software (LGPL 3.0) supporting researchers in managing their data throughout the entire data life cycle from data collection, documentation, processing, analyzing, to sharing and publishing research data. It has been designed to meet the requirements of researchers in the field of biodiversity, but it is generic enough to serve other communities as well. Our system is already being used by institutions in Germany, but it is still evolving. We think our system could be interesting for other RSEs as well, because BEXIS 2 follows a modular design and can be extended with custom modules. So there is no need to start from the scratch but just implement specific functionalities.

Flexibility

BEXIS2 offers flexibility in various important fields of the system. The following are an excerpt of these.

Multiple Metadata Schemas

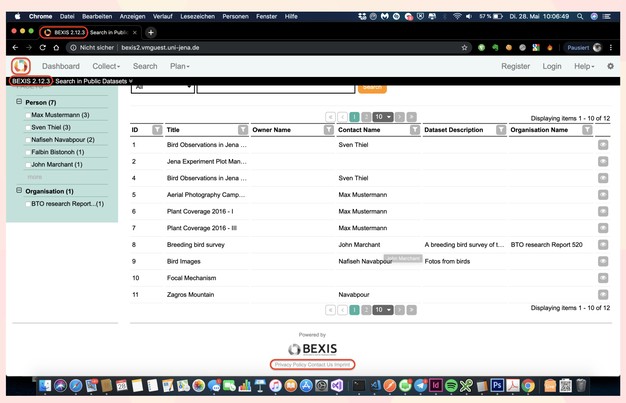
There is no given metadata schema or even standard. You are free to choose one or even multiple different metadata schemas. Just import a metadata schema (XSD) relevant to your user community and map it to the system types. For each schema a custom form will be generated by BEXIS 2.

Support for Multiple DBMS

Run BEXIS2 on top of your preferred Data Base Management System. BEXIS2 runs on PostgreSQL, IBM DB2, Microsoft SQL Server. Others can be implemented easily.

Multitenancy

It is quite easy to customize the look and feel of the BEXIS2 user interface to have your individual branding.



Party Package

Manage information about organizations, institutes, projects, people, (or any other custom type) and their relationships in one place and re-use this information throughout the system.

Community

Development

GWDG Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen

Max-Planck-Institut für Biogeochemie

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

gfbio German Federation for Biological Data

FRIEDRICH-SCHILLER-UNIVERSITÄT JENA

PENSOFT

Project Instances

AquaDiva

THE JENA EXPERIMENT

biodiversity exploratories functional biodiversity research

ATTO data portal

WILDE MULDE

LAND KLIF

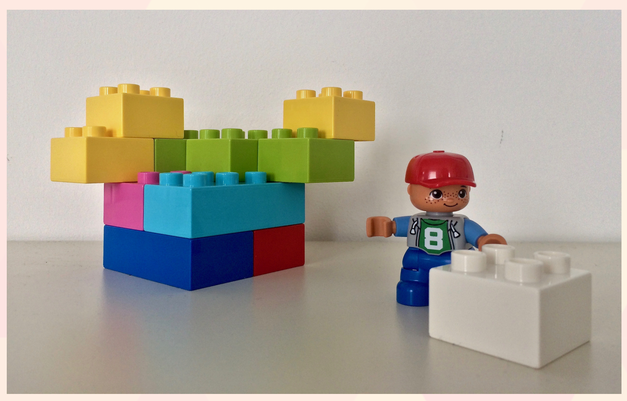
Max-Planck-Institut für Biogeochemie

HELMHOLTZ ZENTRUM FÜR UMWELTFORSCHUNG UFZ

Modularity

Core Components

This set of functions (blue,red/rosa) build the backbone of the system. Beside the data access (CRUD of entities), there are also functions for I/O and helper classes. Usually, those functions getting used within the modules.



Core Modules / 3rd Party Modules

The core modules (green) were developed by the core team and cover main functionalities based on predefined workflows. Addtitionally, there are 3rd party modules (yellow) developed by external people or involved projects, e.g. AquaDiva, iDiv. Those modules cover other functionalities and/or workflows. Modules may rely on other modules as well.

Module Template

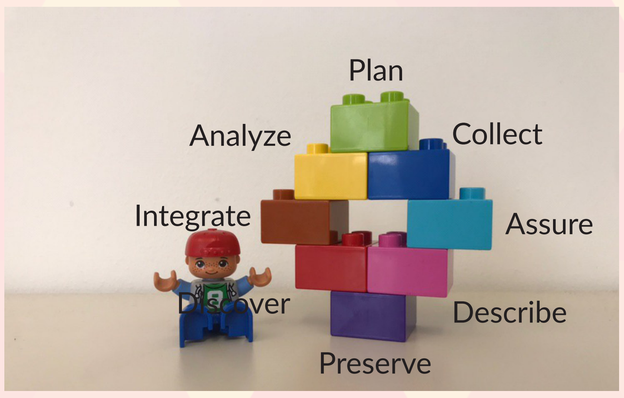
We provide a blank module template (white) for all people, that are interested in developing a custom module.

Data Life Cycle & BEXIS2

As a data management platform, BEXIS2 tries to support the researchers throughout the entire data life cycle. But it focuses mostly on data integration and reuse.

Data Structures

Based on our experience, the names of variables and units differ a lot - even within the same project. In BEXIS2, there are mechanisms to counteract this issue.



Reuse of Information

It is a cumbersome task for researchers to enter same information repeatedly. BEXIS2 makes the reuse of such information easier to relief users from re-entering things.

For more information, visit our website and take a closer look at the complete features list.

Get Started Now!

Please use our demo and try BEXIS2 by yourself. Either scan the QR code or go to:

http://bexis2.vmguest.uni-jena.de

Do you have any questions or want to get further information about BEXIS2? Don‘t hesitate and get in contact with us. Either at the deRSE19 directly. So watch out for the following guy:

Sven Thiel

sven.thiel@uni-jena.de

@zw1bb3l

Other than that, you can use the following resources as well:

https://bexis2.uni-jena.de

https://github.com/BEXIS2/Core

bexis-support@uni-jena.de

FRIEDRICH-SCHILLER-UNIVERSITÄT JENA

FUSION

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