

# HeFDI Data Talk

Datum	Thema	Referent*innen
06. September 2024	BEXIS2 – Funktionale Übersicht und Demo	David Schöne & Sven Thiel (Friedrich-Schiller-Universität Jena)



## Abstract:

In diesem Vortrag wird das Open Source Daten-Management-System "BEXIS2" vorgestellt. Ziel ist es, einen Überblick über die Funktionen von BEXIS2 aus Nutzer- und Datenmanager- Sicht zu erhalten und in einer Demo vorzuführen, wie einfach es ist Daten einzupflegen, zu verteilen, zu exportieren und dabei ein Lächeln auf dem Gesicht zu behalten.

## Zu den HeFDI Data Talks:

Die HeFDI Data Talks sind eine zweiwöchentliche offene Informations- und Diskussionsveranstaltung rund um das Thema Datenmanagement im Wissenschaftskontext, in deren Rahmen sich einschlägige NFDI-Konsortien sowie Forschungsdatenmanagements-Dienste vorstellen. Die Reihe diskutiert aktuelle Themen und stellt zahlreiche – auch lokale und regionale – Tools und Services vor. Angeboten werden die HeFDI Data Talks von der Landesinitiative HeFDI - Hessische Forschungsdateninfrastrukturen, welche vom Hessischen Ministerium für Wissenschaft und Forschung, Kunst und Kultur (HMWK) finanziert wird.

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**BEXIS**  
RESEARCH DATA MANAGEMENT



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**BIODIVERSITY**

# BEXIS2

## functional overview and demo

David Schöne  
Sven Thiel



# WAS IST BEXIS2?



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Datenmanagement

Data Sharing (Requests)

Open Source



**BEXIS**  
RESEARCH DATA MANAGEMENT

Flexible Metadata & Data Strukturen

Support laufender Projekte

Tabellarische Daten & Binäre Data



# TEAM

## CORE



Franziska Zander  
(Projektkoordinatorin)



Sven Thiel  
(Entwickler)



David Schöne  
(Entwickler)



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Prof. Dr. Birgitta König-Ries

## CONTRIBUTORS



Hamdi Hamed  
(AquaDiva)



Martin Hohmuth  
(Microverse)





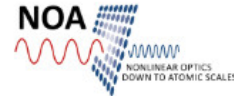
# INSTANCES



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Ecological and Socioeconomic  
Functions of Tropical Lowland  
Rainforest Transformation  
Systems (Sumatra, Indonesia)



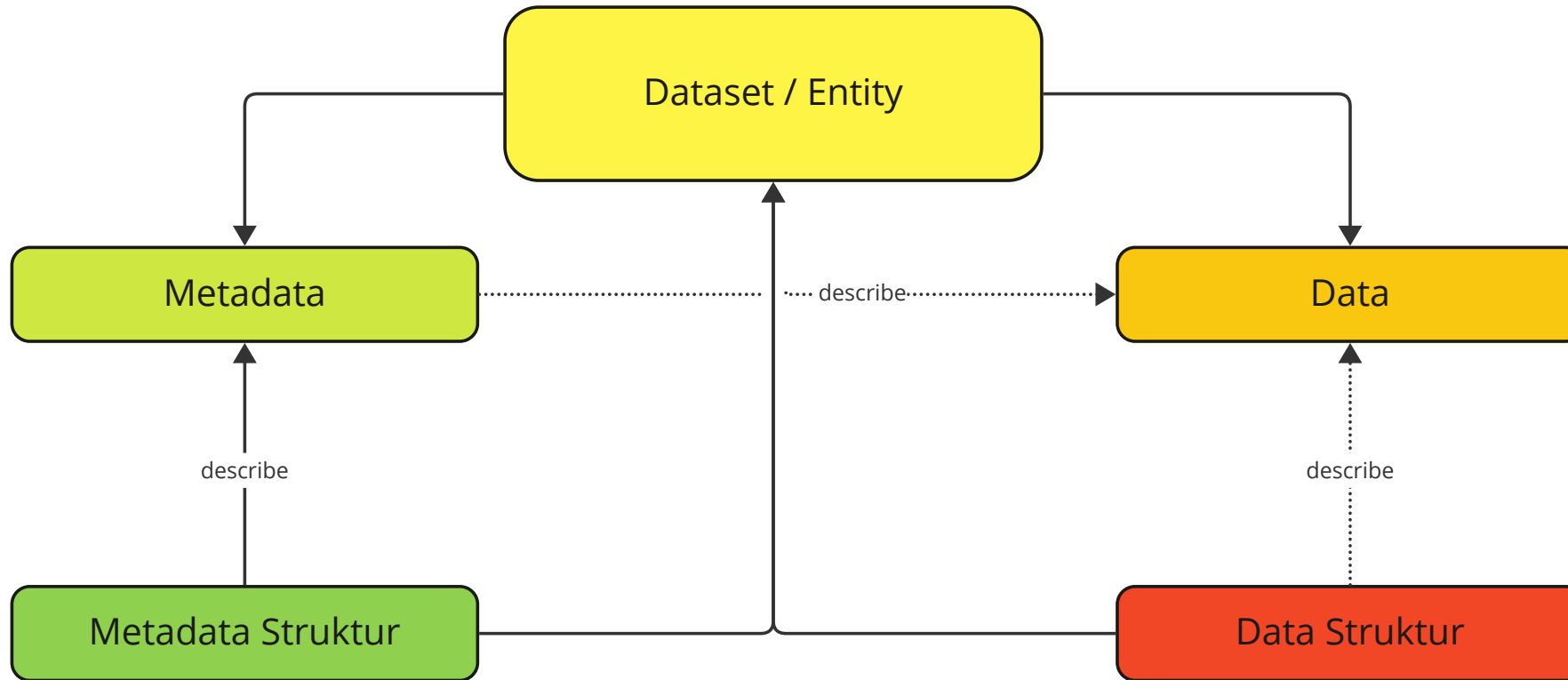
Max Planck Institute  
for Biogeochemistry



BEXIS2  
as a  
Service



# ENTITY



# ENDNUTZER FUNKTIONEN



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## Search Data

Find datasets by keyword (incl. autocomplete) or use facets, filtering, sorting to quickly retrieve the dataset you need.

## Upload Data

Upload your tabular data or any other type of data to BEXIS2 and describe it with metadata.

## Web API Access

Beside downloading a dataset from the portal, you may also retrieve data stored in BEXIS directly with a script or from your application (e.g. R) using API calls.

## Dataset Permissions

Specify fine grained data permissions on who can view, access, or update your dataset.

## Re-use Data Structures

Design your dataset by specifying its data structure, variables, meanings, units and constraints only once in BEXIS2 and re-use them for any dataset.

## Dataset Versioning

Keep track of the evolution of your dataset (i.e. who did what and when) and return to any previous version if needed.

## Data Publication

Publish your dataset with a renown data repository or data journal (e.g. GFBio, Biodiversity Data Journal) and make it a citeable data publication identified by a DOI.

## Single Sign-on

Use your existing credentials of your organisation to log on to BEXIS. No need to remember another username and password.



# ENDNUTZER FUNKTIONEN



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## Re-use Data Structures

Design your dataset by specifying its data structure, variables, meanings, units and constraints only once in BEXIS2 and re-use them for any dataset.

Variable Templates

Meanings

Units

External Links

Constraints

Missing Values

Data structures

## Create new Data Structure

a) Upload a file to create a new data structure based on it

Drag 'n' drop some files here, or click to select files (max file size: 1024 mb)  
.csv, .txt, .tsv

b) or start with an empty data structure.

Search rows...

Id	Title	Description	Linked
2	soil sampling campaign		2
3	taxonomy look-up table		3
4	test	adads	6

10

<< < 1 > >>

← Title \* taxonomy look-up table Description

ASV ✓ Description ASV Data Preview (no data available) string none primary key

Seq ✓ Description dna sequence Data Preview (no data available) string none

Name ✓ Kingdom Mark a part of primary key Value can be optional

Description The full scientific name of the kingdom in which the Taxon is classified. Data preview:

Data Type string String detected: If not correct, please check if placeholder for missing values provided correctly. Missing values:

Unit none

Template

Meanings taxonRank × kingdom ×

Constraints -- Please select --

taxonRank dwc:taxonRank kingdom dwc:kingdom



# ENDNUTZER FUNKTIONEN



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## Upload Data

Upload your tabular data or any other type of data to BEXIS2 and describe it with metadata.

My Data Create Search Davidschoene Help

AppLocal (Home) Edit: (4 | data primary key check)

Metadata

Data Structure 2vars für primary key check (4)

Search rows...

Id	Name	Unit	DataType
113	v1	none	non-negative integer
114	v2	none	non-negative integer

File Upload 00 min

Drag 'n' drop some files here, or click to select files (max file size: 1024 mb)  
.xslm, .xlsx, .txt, .csv, .tsv

2.csv

1.csv

File Reader Information

Validation

2.csv

Dataset File FileReader Datastructure Value PrimaryKey

1.csv

Dataset File FileReader Datastructure Value PrimaryKey

Submit

Delimiter: comma | Decimal: point | TextMarker: doubleQuotes

Variable | Unit | Description | Missing Values | Data

Missing Values

na not available

Total: 646271 Found: 646271 Skipped: 0

TimeSeriesID	SurveyID	Year	Quarter	Species	Abundance	UnitAbundance
G51	aca1	2003	1	Cyprinus carpio	0.216	Ind.100m2
G1	aca10	2003	1	Barbus haasi	17.281	Ind.100m2
G1	aca10	2003	1	Salmo trutta	3.649	Ind.100m2
G23	aca100	2016	2	Barbus meridionalis	11.496	Ind.100m2
G23	aca100	2016	2	Salmo trutta	7.621	Ind.100m2

you see only the first 10 rows of the data

Title \*

Description

title is required

Variables with errors: SurveyID Year Quarter Species Abundance UnitAbundance

Name

TimeSeriesID

Description

id of time series

Data Type

string

Unit

none

Template

identifier, code based

Meanings

eventID

Constraints

Timeseries Pattern

SurveyID \* Description

Data Preview: "aca1", "aca10", "aca100", "aca101", "aca102", "aca103", "aca103"

Controls

- Selection: left mouse button
- Drag: left mouse button down and drag
- Deselect: right mouse button click
- Select Row: double click left mouse button or click arrow
- Deselect Row: right mouse button click on arrow



# ENDNUTZER FUNKTIONEN



Search Data

Find datasets by keyword (incl. autocomplete) or use facets, filtering, sorting to quickly retrieve the dataset you need.

My Data Create Search admin - Help -

Home / Search

FACETS

- Person (8)**
  - David Schöne (1)
  - Francois Buscot (1)
  - Ingo Schöning (1)
  - Kezia Goldmann (1)
  - Marion Schrupf (1)
  - more
- Organisation (0)**
- Taxon (3)**
  - Fungi (1)
  - Microbes (1)
  - None (1)
- keywords (17)**
  - bark beetle (1)
  - carbon (1)
  - CN ratio (1)
  - coordinated soil samp...(1)
  - Forest (1)
  - more

All  Search

public only

« < 1 10 > » Displaying items 1 - 4 of 4

ID	Title	Owner Name	Contact Name	Dataset Description	Organisation Name	...
5	My test			Description		
3	Comparision of fungal comm...	Kezia Goldmann	Francois Buscot	In recent years, climate cha...		
2	Soil carbon and nitrogen con...	Ingo Schöning	Ingo Schöning	The core project Soil provide...		
1	Test Dataset	David Schöne	David Schöne	n/a		

« < 1 10 > » Displaying items 1 - 4 of 4

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## Dataset Permissions

Specify fine grained data permissions on who can view, access, or update your dataset.

User can request access to datasets

Subject Id	Subject Na...	Subject Ty...	Read	Write	Delete	Grant
32773	admin	Group	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
32772	administrator	User	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
32770	cornelia	User	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
32769	david	User	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
2	David Schöne	User	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
32771	franziska	User	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
32774	manager	Group	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
32775	scientist	Group	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
32768	sven	User	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
65536		User	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

« < 1 50 ▾ > »

Displaying items 1 - 10 of 10



# ENDNUTZER FUNKTIONEN



## Dataset Versioning

Keep track of the evolution of your dataset (i.e. who did what and when) and return to any previous version if needed.

The screenshot shows the user interface for managing dataset versions. At the top, there are navigation links for 'My Data', 'Create', and 'Search', along with user information 'administrator' and a 'Help' menu. The main heading is 'Biomass data from the drought experiment (2011)'. Below this, the current version is identified as 'Dataset id: 3 Version: 3 Metadata edited (by Administrator, 12.03.2024)'. A dropdown menu is open, showing a list of versions: '3 (Latest internal version)', '3 Metadata edited (by Administrator, 12.03.2024)', '2 Data imported: 320 rows (by Administrator, 22.04.2021)', and '1 Metadata creation (by Administrator, 22.04.2021)'. The '3 Metadata edited' version is selected. Below the dropdown, there are buttons for 'Download Metadata' and 'show all fields'. A tabbed interface shows 'General' as the active tab. The 'General' section contains a 'Title' field with the text 'Biomass data from the drought experiment (2011)' and an 'Abstract' field with the text: 'This experiment was established in order to investigate the effects of biodiversity and prolonged summer drought and their interaction on aboveground productivity. core area = 2 cuts per year, not fertilized; Treatment: 1 roofed subplot, 1 roofed and watered subplot; roofs were installed from 2011-07-11 to 2011-08-29'. On the right side, there is a 'switch to edit' toggle and a 'Download Dataset' button. A sidebar on the far right shows a list of fields for the dataset.





# ENDNUTZER FUNKTIONEN



## Data Publication

Publish your dataset with a renowned data repository or data journal (e.g. GFBio, Biodiversity Data Journal) and make it a citeable data publication identified by a DOI.

DOI  
Vergabestelle  
DataCite

[Home](#) / [Show Dataset: Biomass data from the drought experiment \(2017\)](#)

## Biomass data from the drought experiment (2017)

switch to edit

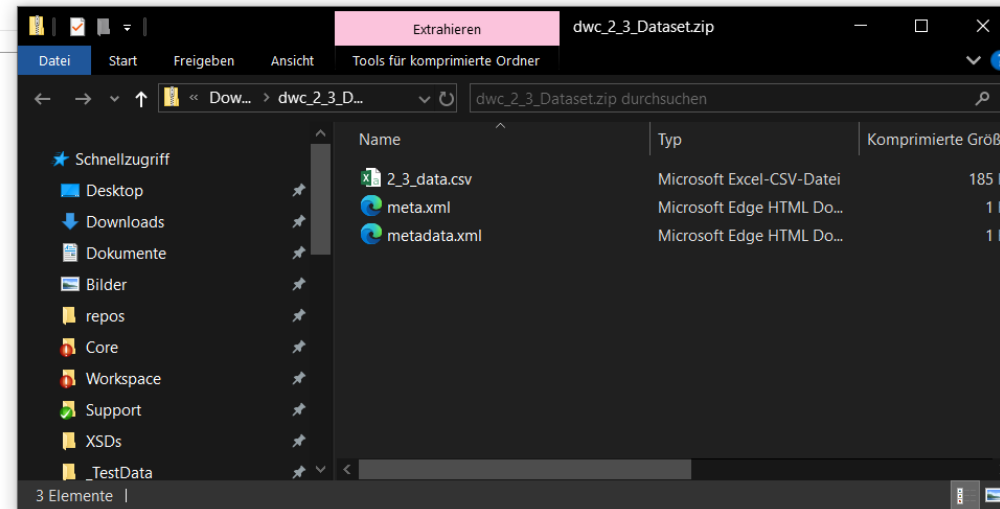
Dataset id: 2 Version: 3 Metadata edited (by Administrator, 29.06.2022)

Download Dataset

METADATA DATA DATA STRUCTURE LINK ATTACHMENTS PUBLISH

Select Publish

Version	Publisher	Data Repository	Creation Date	Status	Link	
3	DOI	DataCite	6/29/2022 5:35:59 PM	DOI Registered	Website	
3	GBIF		5/6/2024 1:19:27 PM	created	Website	



# ENDNUTZER FUNKTIONEN



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## Web API Access

Beside downloading a dataset from the portal, you may also retrieve data stored in BEXIS directly with a script or from your application (e.g. R) using API calls.

### Bexis 2 APIs

**AttachmentOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**AttachmentIn** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**ConceptOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**DataOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**GET** /api/Data [Get a list of all dataset ids](#)

**GET** /api/Data/{id} [In addition to the id, it is possible to have projection and selection criteria passed to the action via query string parameters](#)

**GET** /api/Data/{id}/{versionId} [In addition to the id and version id, it is possible to have projection and selection criteria passed to the action via query string parameters](#)

**GET** /api/Data/{id}/version\_number/{version\_number} [In addition to the id, it is possible to have projection and selection criteria passed to the action via query string parameters](#)

**GET** /api/Data/{id}/version\_name/{version\_name} [In addition to the id and version name, it is possible to have projection and selection criteria passed to the action via query string parameters](#)

**DataIn** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**PUT** /api/Data

**DataQualityOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**DatasetOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**DatasetIn** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**DataStatisticOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**DataTable** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**File** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Groups** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Link** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**LinkElementType** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**MappingOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Meanings** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**MeaningsAdmin** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**MetadataOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**MetadataIn** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**MetadataStatisticOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**MetadataStructureOut** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Parties** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**PartyCustomAttributes** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**PartyRelationships** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**PartyRelationshipTypes** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**PartyTypes** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**PersonNameComponents** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Structures** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Tokens** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Users** [Show/Hide](#) [List Operations](#) [Expand Operations](#)

**Versions** [Show/Hide](#) [List Operations](#) [Expand Operations](#)





➔ Single Sign-on

Use your existing credentials of your organisation to log on to BEXIS. No need to remember another username and password.



Search

[Register](#) [Login](#) [Help](#)

[Home](#) / [Log In](#)

Use your local account to login

Use different service for log in.

Email or  
UserName

bexis-support@uni-jena.de

LDAP

Password

.....

Log in

Remember me

[Forgot your password?](#)

[Register as a new user](#)



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# DATAMANAGER/ ADMIN FUNKTIONEN



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## Customizable Search Interface

Customize the Search Interface, e.g. select the metadata elements to be indexed and shown, specify the facets, and determine the representation of search results.

## Use Multiple Metadata Schemas

Import multiple metadata schemas (XSD) relevant to your user community and map them to system types. For each schema a custom form will be generated by BEXIS2.

## Notification Framework

BEXIS2 comes with a notification framework to send out custom messages (e.g. via email) to users on specific actions.

## System Feature Permission

Specify fine grained permissions on system features and tools for individual users or groups.

## Extensible Architecture

BEXIS2 follows a modular design and can be integrated with external applications and services or extended with custom modules

## Party Package

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

## Entity Templates

The management and use of different entities in the system is simplified by being able to create templates for different scenarios (e.g. collection data, sensors, etc.).

## Application Settings

Settings/options can be changed via a web interface without having to restart the system or act directly on the server.



# DATAMANAGER/ ADMIN FUNKTIONEN



## Customizable Search Interface

Customize the Search Interface, e.g. select the metadata elements to be indexed and shown, specify the facets, and determine the representation of search results.

Home / Manage Search

Create Search Attribute

include primary data Refresh Search

Display Name	Search Compone...	Data T...	Heade...	Default Head...	Multi V...	Analyz...	
Title	Category	String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Description/DescriptionType/Representation/Metadata... Metadata/Basic/BasicType/title/titleType Metadata/general/generalType/title/titleType
Owner Name	Category	String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Owners/OwnersType/Owner/Contact/Person/PersonNa... Metadata/creator/creatorType/individualName/individualNameType/surName/surNameType Metadata/authorship/authorshipType/dataCreator/dataCreatorType
Contact Name	Category	String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/ContentContacts/ContentContactsType/ContentContact/MicroAgentP/Name/Na... Metadata/contact/contactType/individualName/individualNameType/surName/surNameType Metadata/authorship/authorshipType/contactPerson/contactType/name/nameType
Dataset Description	Category	String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Description/DescriptionType/Representation/Metadata... Metadata/general/generalType/abstract/abstractType
Taxonomic Term	Category	String	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Scope/ScopeType/TaxonomicTerms/TaxonomicTermsT...
GeoEcological Term	Category	String	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Scope/ScopeType/GeoecologicalTerms/GeoecologicalT...
Organisation Name	Category	String	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Owners/OwnersType/Owner/Contact/Organisation/Org...
Person	Facet	String	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Metadata/Metadata/MetadataType/Owners/OwnersType/Owner/Contact/Person/PersonNa... Metadata/ContentContacts/ContentContactsType/ContentContact/MicroAgentP/Name/Na... Metadata/TechnicalContacts/TechnicalContactsType/TechnicalContact/MicroAgentP/Name... Metadata/contact/contactType/individualName/individualNameType/surName/surNameType Metadata/creator/creatorType/individualName/individualNameType/surName/surNameType Metadata/authorship/authorshipType/contactPerson/contactType/name/nameType Metadata/authorship/authorshipType/dataCollector/dataCollectorType Metadata/authorship/authorshipType/dataCreator/dataCreatorType Metadata/authorship/authorshipType/metadataCreator/metadataCreatorType Metadata/authorship/authorshipType/ProjectLeader/ProjectLeaderType



# DATAMANAGER/ ADMIN FUNKTIONEN















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## Use Multiple Metadata Schemas

Import multiple metadata schemas (XSD) relevant to your user community and map them to system types. For each schema a custom form will be generated by BEXIS2.

Home / Manage Metadata Structure

Import

Id	Name	Entity Name	Info References	Acti...
1	Basic ABCD	Dataset	<b>Title :</b> Metadata/Description/Representation/Title <b>Description :</b> Metadata/Description/Representation/Details	<input checked="" type="checkbox"/>    
2	GBIF	Dataset	<b>Title :</b> Basic/title <b>Description :</b> abstract/para	<input checked="" type="checkbox"/>    
3	Jexis	Dataset	<b>Title :</b> general/title <b>Description :</b> general/abstract	<input checked="" type="checkbox"/>    

Displaying items 1 - 3 of 3

```
<?xml version='1.0' encoding='UTF-8'?>
<!-- The element annotations in this document are drawn from the appropriate standard
<!-- For EML - see http://knb.ecoinformatics.org/software/eml/eml-2.1.1/index.html -->
<!-- For NCD - see Natural Collections Descriptions (NCD) v0.9 2008 http://wiki.tdwg.org/twiki/bin/viewfile/NCD/WebHome?rev=1.
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" version="1.2"
xmlns:eml="eml://ecoinformatics.org/eml-2.1.1" elementFormDefault="qualified"
xmlns:dc="http://purl.org/dc/terms/">
<xs:import namespace="eml://ecoinformatics.org/eml-2.1.1" schemaLocation="eml.xsd"/>
<xs:import namespace="http://purl.org/dc/terms/" schemaLocation="dc.xsd"/>
<xs:import namespace="http://www.w3.org/XML/1998/namespace"
schemaLocation="http://rs.gbif.org/schema/xml.xsd"/>
<xs:element name="dataset">
<xs:annotation>
<xs:documentation>The dataset element is a wrapper for all other elements relating to a single dataset</xs:documentation>
</xs:annotation>
<xs:complexType>
<xs:sequence>
<xs:element ref="alternateIdentifier" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="title" maxOccurs="unbounded"/>
<!-- Original creator of the dataset/resource, not necessarily the agent authoring the eml file nor the primary contact
<xs:element name="creator" type="agentType" maxOccurs="unbounded">
<xs:annotation>
<xs:documentation>The creator is the person who created the resource (not necessarily the author of this metadata a
</xs:annotation>
</xs:element>
<!-- "Metadata author" the agent authoring the eml file -->
<xs:element name="metadataProvider" type="agentType" minOccurs="0" maxOccurs="unbounded">
<xs:annotation>
<xs:documentation>The party responsible for the creation of the metadata document</xs:documentation>
</xs:annotation>
</xs:element>
```

Home / Metadata Structure Mapping

Jexis

System mappings refers to internal keys that are automatically set in the metadata party type (e.g. person/relationshipships/owner)

Usage  Default

required mappings 8/8

GBIF (MappingConcept)

The concept is needed to create a darwin core archive for GBIF.

Simple

- Alternate identifier \* type: Mapping Key path: eml: dataset/ alternateIdentifier
- Title \* type: Mapping Key path: eml: dataset/ title
- Pub date \* type: Mapping Key path: eml: dataset/ pubDate
- Language type: Mapping Key path: eml: dataset/ language
- Abstract \* type: Mapping Key path: eml: dataset/ abstract/ para
- Intellectual rights \* type: Mapping Key path: eml: dataset/ intellectualRights/ para/ utank/ citefile
- Keyword type: Mapping Key

metadatatCreator

metadatatProvider

metadatatCreator

givenName

surName

Transformation Rule (metadatatCreator to givenName)

Transformation Rule (metadatatCreator to surName)

Save Delete

dataCreator

creator

dataCreator

givenName

surName

Transformation Rule (dataCreator to givenName)

Transformation Rule (dataCreator to surName)



# DATAMANAGER/ ADMIN FUNKTIONEN



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## Notification Framework

BEXIS2 comes with a notification framework to send out custom messages (e.g. via email) to users on specific actions.

User Registration

Entity Events  
(Create/Update/Download)

Exceptions

Requests

The screenshot shows an email inbox with the following notifications:

- ☆ BEXIS2 - User has registered
- ☆ BEXIS2 - Collections: Created (Id: 26)
- ☆ BEXIS2 - Data upload completed (Id: 26)
- ☆ BEXIS2 - File was uploaded (Id: 26)
- ☆ BEXIS2 - Dataset: Metadata updated (Id: 26)
- ☆ BEXIS2 - Data request from David Schöne for dataset with id = 26
- ☆ BEXIS2 - Collections: Created (Id: 27)
- ☆ BEXIS2 - Dataset: Metadata updated (Id: 27)

The selected email is from "bexis local <david.schoene@uni-jena.de>" to "bexis2-jenkins@listserv.uni-jena.de <bexis2-jenkins@listserv.uni-jena.de>". The subject is "BEXIS2 - Data request from David Schöne for dataset with id = 26".

The email body contains the following text:

User "David Schöne" ("david.schoene@uni-jena.de") sent a data request for dataset "my collections 2024" with id 26  
**Intention:** "das ist ein sehr schöner datensatz."  
To decide on this request login to train. You will find all pending requests under My Data/Dashboard -> Datasets -> Decisions.





### System Feature Permission

Specify fine grained permissions on system features and tools for individual users or groups.

My Data Create Search

administrator Help

Home / Manage Features

- BExIS
  - Administration
    - Users
    - Groups
    - Feature Permissions
    - Entity Permissions
    - User Permissions
    - Dataset Management
    - Document Management
    - Request Management
    - Former Member Manageme
  - Business administration modul
    - Party
    - Settings
  - Data Discovery
    - Search
    - Search Management
    - Dashboard
    - Requests Send
    - Requests Manage

Navigation: << < 1 100 > >>

Effective	Grant	None	Deny	Id	Name	Type
✓	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	65536	Admin istrator	User
✓	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	65539	Admins	Group
✗	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	65538	datamanager	User
✗	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	65540	DataManagers	Group
✗	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	65537	scientist	User
✗	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	65541	Scientists	Group

Navigation: << < 1 100 > >>

Displaying items 1 - 6 of 6





# DATAMANAGER/ ADMIN FUNKTIONEN



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## Extensible Architecture

BEXIS2 follows a modular design and can be integrated with external applications and services or extended with custom modules

## Modules & Tools Overview

This page contains modules that the BEXIS2 community has developed. They are provided "as is" without any warranty or liability. Please use at your own risk.

Most of the modules are constantly under development and are not (yet) provided as releases that match the official BEXIS2 releases. We hope to get there in the future. For the time being, if you are interested in using a module please contact the individual provider and to learn about the current status and how to use the module.

Name	Description	Status	Type	Contact
AD Annotation Module (AAM)[New Module]	provides a semantic annotation tool on the fly over the variables using the AD Ontology to be used by the semantic search	Intern	Module	AquaDiva Team
Analysis and Statistics Module (ASM)	Provides a Global Graph overview of the semantic meanings of the selected dataset - Graphical representation of the Numerical/categorical attributes of the primary data - provides a global report about the data portal (semantic coverage, numerical coverage, dataset, and variable coverage)	Intern	Module	AquaDiva Team
BEXIS2-VAT System Interface (BEXIS2-VAT)	This BEXIS2 module extends the system with an interface to the Geo Engine	BEXIS2	Module	BEXIS2
Digital Object Identifier (DOI) Assignment Workflow (DOIAW)	A module that allows datasets to be linked to DataCite DOI metadata and to send DOI requests to a DOI proxy.	Under development	Module	BEXIS2 / BExIS team
Event Management (EMM)	Simple to customize tool to manage participants registration for events (e.g., workshops, meetings, ...). Based on a fully flexible registration form. No user account is needed for registration. Update your registration before the deadline.	Public	Module	BExIS team
File Management (FMT)	Tool to upload and remove files. It is customizable and system-wide usable. Manage your (non-dataset) files in a topic-centered manner.	Public	Module	BExIS team
Land-use Intensity (LUI)	A tool to calculate the index of land-use intensity (LUI) according to Blüthgen et al. (2012), based on information from the land owners on mowing, grazing and fertilization (Vogt et al. 2019) and your selections via a user-friendly interface. <a href="https://www.bexis.uni-jena.de/LUI/LUICalculation/DownloadPDF?fileName=LUI-citation.pdf">https://www.bexis.uni-jena.de/LUI/LUICalculation/DownloadPDF?fileName=LUI-citation.pdf</a>	Public	Module	BExIS team
Omic Archives (OAC)	Import/retrieve Succession Metadata (and its sequence samples) from Sequence data portal (EBI, BioGps, NCBI) into the portal as primary data	Intern	Module	AquaDiva Team
Open Archives Initiative Protocol for Metadata Harvesting (OAIPMH)	This module extends a BEXIS2 instance with the functionality that BEXIS2 works as a data provider for all harvesters according to the OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting) protocol.	Public	Module	BEXIS2 team
Photo Gallery (PGM)	Customized system to manage photos. You can easily preview, filter, and pick photos for later ordering.	Intern	Module	BExIS team
Plot profiling tool	A tool to count the number of plot IDs from a list or a file. The plots will also be categorized.	Intern	Module	BExIS team

<https://bexis2.github.io/software/modules>



# DATAMANAGER/ ADMIN FUNKTIONEN



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## Party Package

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

Home / Manage Parties

Create Party

All Person Organization Institute Project Group

Id	Name	Type	Start date	End date	Actions required!
3	BEXIS2	Project			
2	Friedrich-Schiller-Universität	Organization			
	Admin istrator	Person			

Home / View party

Party Additional attributes Relationships

First Name	Max
Last Name	Mustermann
Email	max.mustermann@uni-jena.de
Phone	110
Mobile	
Fax	
Street	Am Rande der Zeit
ZipCode	11111
City	Nirgends
Country	Hier
Website	www.max-mustermanns-fav-images
ORCID	
VIAF	

<< < 1 100 > >>

Powered by

Use an entry from autocomplete list.

\* Name

Email

Institute

Street

Postal code

City

Phone

Mobile

URL



# DATAMANAGER/ ADMIN FUNKTIONEN



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## Entity Templates

The management and use of different entities in the system is simplified by being able to create templates for different scenarios (e.g. collection data, sensors, etc.).



**Template Name \***  
Observations

**Entity Type \***  
Dataset

**Description \***  
The template is used to record measurements or observations from a specific area.

**Metadata**  
**Metadata Schema \***  
bexis

**Data Structure**  
 Allow to use data structures  
Limit the selection of allowed data structures  
-- Please select --

**Required Fields**  
Title X Description X

Allow saving with empty required fields

**Administration**  
Set permissions per default to the following groups

**Full**  
admin X

**View, Edit and Grant**  
manager X

**View and Edit**  
-- Please select --

**View**  
-- Please select --

**Notifications**  
Send notifications per default to the following groups  
admin X

**Dataset Settings**  
Disable dataset components  
Link X

**Restrict allowed file types for file upload**  
.csv X

BEXIS2 > Create a Dataset

**Collections** In use Basic ABCD Dataset

**Observations** In use bexis Dataset  
The template is used to record measurements or observations from a specific area. .csv

**dublin** In use dublin Dataset  
asdaad

**Soil** In use SoilSystemsMetadata\_v1.2 Dataset  
metadata schema from/for Soil System

**New Observations**  
The template is used to record measurements or observations from a specific area.

**Title \***

**Description \***

**Supported file types**  
.csv



# DATAMANAGER/ ADMIN FUNKTIONEN



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## Application Settings

Settings/options can be changed via a web interface without having to restart the system or act directly on the server.

My Data Create Search

Admin ▾ Help ▾ ⚙

BEXIS2 >

General

User Administration

Data Discovery

Dataset Creation

Data structure

Administration

Data Dissemination

Visualization

Multi Media

Help URL (key: help)

help

Set optional as default (key: optionalDefault)

Show -Create Variable Template- on data structure edit (key: showCreateVariableTemplate)

Link variables to templates (key: isTemplateRequired)

Link variables to meanings (key: isMeaningRequired)

Enforce Primary Key? (key: enforcePrimaryKey)

Primary Key changeable? (key: changeablePrimaryKey)

Missing values (key: missingValues)

?

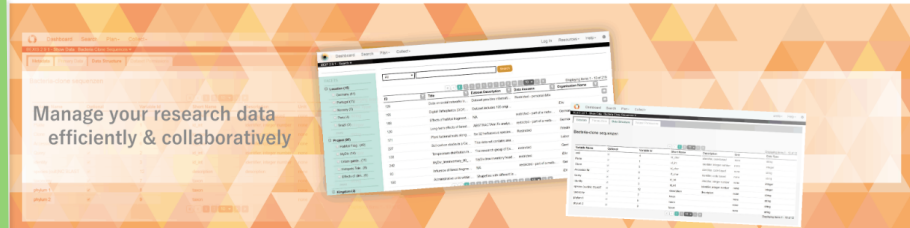




## Welcome to the BEXIS2 demo.

The BEXIS2 demo can be explored in 3 ways.

Vielen Dank für  
eure  
Aufmerksamkeit!!



### Without Registration

As a non-registered user, you can view the publicly provided dataset.

Public Search

### With prepared users

Role	User	Password
Scientist	scientist	scientist
Data Manager	datamanager	datamanager
Administrator	administrator	Please write an email to <a href="mailto:bexis-support@uni-jena.de">bexis-support@uni-jena.de</a> to get the password.

The system is reset once a week. Data that was created with this account no longer exists afterwards!

Login

### Register yourself

You can register yourself. After successful activation, features rights must be granted by the administrator.

Please write an email to [bexis-support@uni-jena.de](mailto:bexis-support@uni-jena.de) and describe briefly what you want to test, so that we can activate the appropriate functions for you.

The system is reset once a week. Thus, the user accounts are no longer available and you have to register again!

Register

In the instance, there is test data that was provided to us by running instances.

### Feature

BEXIS2 supports a broad range of data structures, data types and more. Take a look at all [BEXIS2 features](#).

### Demo

Get familiar with BEXIS2 environment and try out its useful features. [See the latest version in action!](#)

### Latest Releases

Manage your research data now. BEXIS is easy to run and simple to maintain. [Download the latest version of BEXIS2.](#)

### News

- [2024/03/12] BEXIS2 Release - 3.1.0
- [2023/12/22] BEXIS2 Release - 3.0.0-beta
- [2023/09/26] BEXIS2 Release - 2.18.2

demo.bexis2.uni-jena.de

Demo

[bexis-support@uni-jena.de](mailto:bexis-support@uni-jena.de)

bexis2.github.io

BEXIS2

