

# BEXIS 2.11.2

## Data Dissemination Module

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### *User Guide*

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## 1 Overview

The Data Dissemination Module, available via **Setup** (Cog button) and **Export Metadata**, provides a tool to export metadata to a standard compliant XML file. For every metadata structure in the system there is one tab in the tab strip.

The data grid in one tab shows all datasets belonging to the selected metadata structure.

## 2 Metadata Export

Select a checkbox to mark the datasets you would like to export.

Please click the Export button and wait until the metadata XML file has been created successfully and a download link is available in-line.

The screenshot shows the BEXIS 2.9.0 - Export Metadata interface. At the top, there is a navigation bar with 'Dashboard', 'Search', 'Plan', and 'Collect' options. The user is logged in as 'administrator' and can access 'Help' and settings. Below the navigation bar, there is a tab strip with three tabs: 'eml-dataset basic', 'ABCD Basic', and 'BEXIS'. The 'BEXIS' tab is selected. In the main content area, there is an 'Export' button. Below the button, there is a table with the following columns: 'Dataset id', 'Datasetversion id', 'Dataset Title', and 'Download Link'. The table contains two rows of data, both for 'Breeding bird survey'. The first row has 'Dataset id' 1 and 'Datasetversion id' 3. The second row has 'Dataset id' 2 and 'Datasetversion id' 4. Navigation controls and 'Displaying items 1 - 2 of 2' are visible at the bottom of the table.

Dataset id	Datasetversion id	Dataset Title	Download Link
1	3	Breeding bird survey	
2	4	Breeding bird survey	

## 3 Mapping tool

In the mapping tool in BEXIS it is possible to set each metadata structure to predefined keys and party types (for more information about party types see the manual about parties).

- Keys are attributes such as title or description.
- Party types are defined objects such as persons, institutes, organization or workshops.

Advantages after mapping a metadata structure:

1. When publishing a dataset, BEXIS must retrieve information from the metadata and convert it to the requested formats. The more keys and party types are defined, the better the information can be prepared for publication.
2. In the BEXIS there are party types like people, project, etc.  
In the metadata form, according to the mapping, appropriate results are suggested. If a user encapsulates a person in the metadata form, all matching persons are made available for selection. This simplifies the input of metadata.

Search Dashboard Collect Plan dbla Help

Manage Parties

Create Party

Id	Name	Type	Start date	End date	Actions required!
2	BEXIS 2	Project			
1	David Schöne	Person			

Displaying items 1 - 2 of 2

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This image shows an overview of the existing Parties. In this case only one person and one exists.

Search Dashboard Collect Plan

BEXIS - Create Dataset

address

methods

project

title Be

personnel

organization Name

position Name

phone

electronic Mail Address

online Url

role

individual Name

address

funding

para

study Area Description

descriptor

descriptor Value

design Description

description

Auto complete for projects.

Auto complete for persons.

### 3.1 Mapping Overview

The page is divided into 3 sections. The source is displayed on the left. The target is displayed on the right side. In the middle all created mappings are displayed.


#### 3.1.1 Source and Target

Each side as a simple and complex block as also a free text search. Simple elements are example first name, last name or full name from a person. A Complex type can be a person.

### Basic ABCD

Fullname

**Simple** ▾

**FullName**  
Metadata/ Metadata/ MetadataType/  
Owners/ OwnersType/ Owner/   
Contact/ Person/ PersonName/  
FullName/ FullNameType


**Complex** ▾


### Basic ABCD

person

**Simple** ▾

**Complex** ▾

**Person**  
Metadata/ Metadata/ MetadataType/   
Owners/ OwnersType/ Owner/  
Contact/ Person/ PersonName

**PersonName**  
Metadata/ Metadata/ MetadataType/   
Owners/ OwnersType/ Owner/  
Contact/ Person/ PersonName

### 3.1.2 Mapping

Mappings are connections between the source and the target. There are different connection possibilities between the simple attributes. Generally only the connection between two simple attributes is considered.

With the aid of a transformation rule, it is possible to cover a wide range of different cases. A transformation rule consists of a RegEx and a mask. With an example you can check the values and the expected result.

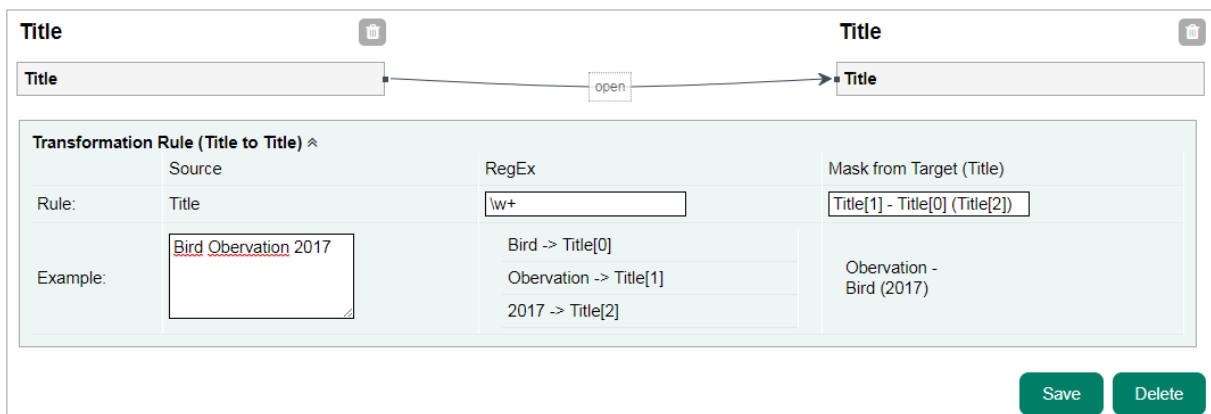
[RegEx Documentation \(mdsn\)](#)

## 3.2 Mapping Examples

Following is some examples of one to one, one to many and many to one mapping.

### 3.2.1 EXAMPLE one to one

This example creates a connection between 2 titles. All words are separated by a RegEx and then arranged differently via the mask.



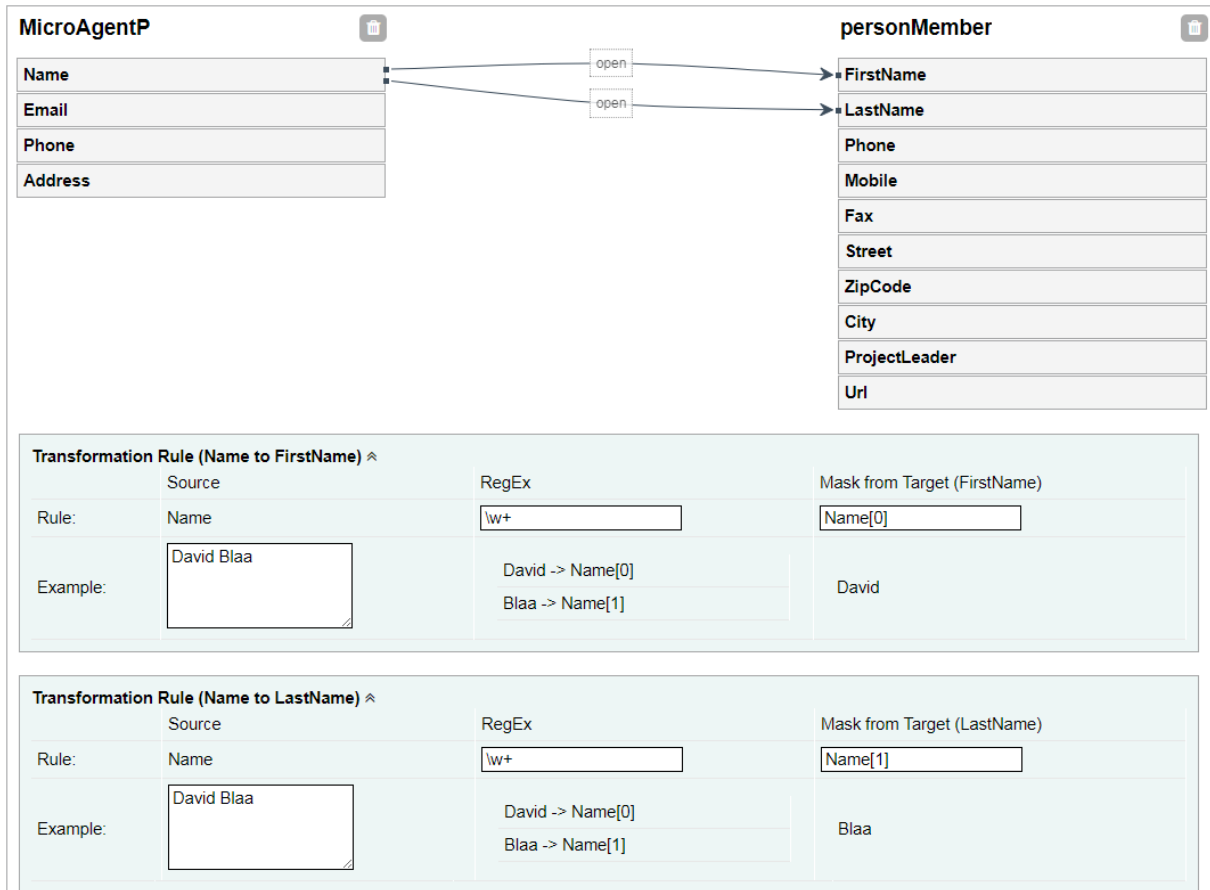
The screenshot shows a mapping tool interface. At the top, two 'Title' fields are connected by an arrow labeled 'open'. Below this, a 'Transformation Rule (Title to Title)' is defined. The rule is configured as follows:

	Source	RegEx	Mask from Target (Title)
Rule:	Title	w+	Title[1] - Title[0] (Title[2])
Example:	Bird Observation 2017	Bird -> Title[0] Observation -> Title[1] 2017 -> Title[2]	Observation - Bird (2017)

At the bottom right, there are 'Save' and 'Delete' buttons.

### 3.2.2 EXAMPLE one to many

This example creates a connection between 1 name and a FirstName and LastName. In the transformation rule, the first and last names are separated from one another by a RegEx and then positioned in the mask via the variable.



### 3.2.3 EXAMPLE many to one

This example creates a connection between the FirstName and LastName by name. Here is no RegEx needed but the mask ordered from both variables.

**personMember**

- FirstName
- LastName
- Phone
- Mobile
- Fax
- Street
- ZipCode
- City
- ProjectLeader
- Uri

**MicroAgentP**

- Name
- Email
- Phone
- Address

**Transformation Rule (LastName to Name)**

	Source	RegEx	Mask from Target (Name)
Rule:	LastName	<input type="text"/>	FirstName[0] LastName[0]
Example:	David	David -> LastName[0]	FirstName[0] David

**Transformation Rule (FirstName to Name)**

	Source	RegEx	Mask from Target (Name)
Rule:	FirstName	<input type="text"/>	FirstName[0] LastName[0]
Example:	Blaa	Blaa -> FirstName[0]	Blaa LastName[0]

### 3.3 Create a mapping

1. Search a select for a simple or complex element from the source.
2. Add Element to the mapping in the middle by clicking the orange arrow next to the element.
3. Search a select for a simple or complex element from the target.
4. Search a select for a simple or complex element from the target.
5. Create the mapping by clicking the create button
6. In the mapping container there are all available simple elements for this mapping. Draw a line by clicking on one simple element from the source side and drag it to a simple element on the target side.
7. If needed, add RegEx and mask to the transformation rule. After entering values in the blocks
8. Press save



## 4 Publishing a Dataset Version

It is possible to prepare the data for 2 brokers and a total of 3 data repositories.

- Broker
  - o GFBIO
  - o Pensoft
  
- Data Repositories
  - o GFBIO – Collections
  - o Pangaea
  - o Pensoft

There is a limitation for Pensoft. All data prepared for Pensoft must be generated with the GBIF metadata structure.

It is only possible to prepare datasets if the metadata is valid.

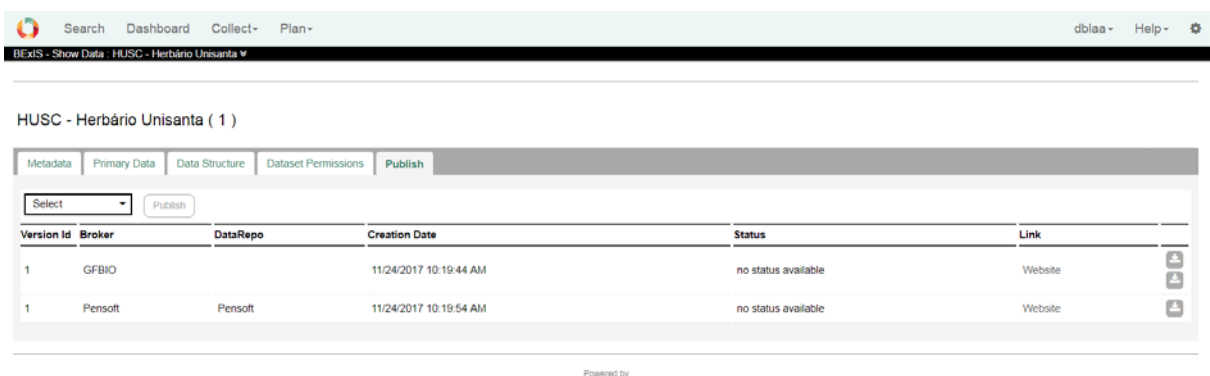
### 4.1 Publish

The user can publish a dataset version if you go to the dataset and find the publish tab.

The dropdown is showing all available data center. Select on and the system try to convert the data and the metadata as defined in the submissionConfig.xml. If something fails a message will displayed.

There are two types of fails:

- 1) The system is not able to convert the data.
- 2) Metadata is not valid. This is a warning. You can go on but the metadata.xml in the zip ist not valid against the exported xsd schema



The screenshot shows a web interface for managing datasets. The breadcrumb trail is "HUSC - Herbário Unisantense". The "Publish" tab is active, showing a "Select" dropdown menu and a "Publish" button. Below this is a table with the following data:

Version Id	Broker	DataRepo	Creation Date	Status	Link
1	GFBIO		11/24/2017 10:19:44 AM	no status available	Website
1	Pensoft	Pensoft	11/24/2017 10:19:54 AM	no status available	Website

### 4.2 GBFIO

Via the GFBIO portal you can start a submission and publish your dataset. Depending on the subject of the data set, a suitable Data Repository is defined. There are different main Types.

- Pangaea
- Collections

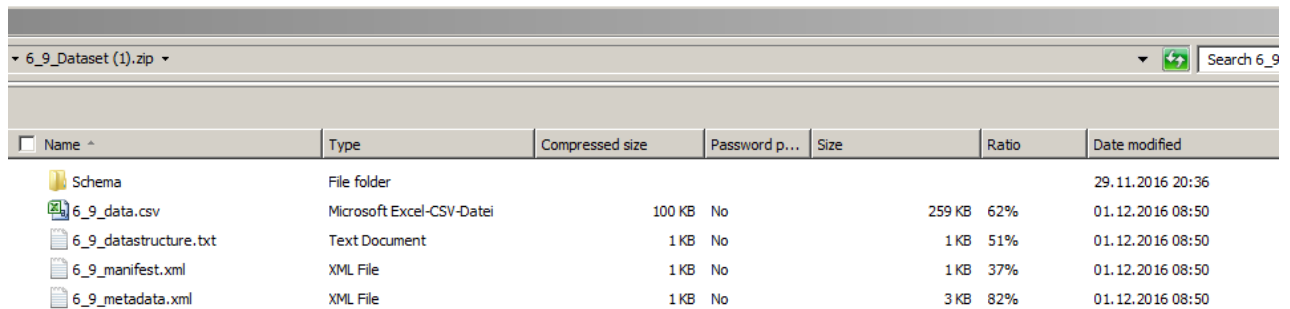
- ENA

Each data repository has different data requirements. BEXIS 2 offers an export for Pangea and Collections.

#### 4.2.1 Collections

The data for the collections is stored in a zip file.

The following files can be found in the zip file.



The screenshot shows a zip file explorer window titled '6\_9\_Dataset (1).zip'. The window contains a table of files and folders. The table has columns for Name, Type, Compressed size, Password p..., Size, Ratio, and Date modified. The files listed are:

Name	Type	Compressed size	Password p...	Size	Ratio	Date modified
Schema	File folder					29.11.2016 20:36
6_9_data.csv	Microsoft Excel-CSV-Datei	100 KB	No	259 KB	62%	01.12.2016 08:50
6_9_datastructure.txt	Text Document	1 KB	No	1 KB	51%	01.12.2016 08:50
6_9_manifest.xml	XML File	1 KB	No	1 KB	37%	01.12.2016 08:50
6_9_metadata.xml	XML File	1 KB	No	3 KB	82%	01.12.2016 08:50

1. Schema - XSD Schema for the metadata
2. Data.\*\* - Primary Data
3. Data structure - Structure of the primary data
4. Manifest File - General information's about the Dataset
5. Metadata - Metadata information's about the dataset

## 4.2.2 Pangaea

For Pangaea, the metadata and primary data are stored in a text file.

```
{
  "AuthorIDs": [
    "Paulo",
    "Paulo",
    "",
    "Zélia",
    "Leonor",
    "de S. Penteado Sampaio",
    "de S. Penteado Sampaio",
    "speciesLink Network",
    "Rodrigues de Mello",
    "Costa Maia"
  ],
  "Title": "MUSC - Herbário Unisanta",
  "Abstract": "O acervo conta com 8.131 espécimes (briófitas, pteridófitas, macroalgas marinhas e angiospermas). O principal objetivo é proporcionar a comunidade científica acesso a este acervo digitalizado.",
  "ReferenceIDs": [],
  "ExportFilename": "MUSCHerbárioUnisanta",
  "EventLabel": "",
  "ParameterIDs": [
    {
      "id": 3,
      "label": "TimeUTC",
      "description": "",
      "isOptional": true,
      "unit": {
        "id": 12,
        "name": "none",
        "description": "",
        "dimension": {
          "name": "dimensionless",
          "description": "",
          "specification": ""
        },
        "measurementSystem": "Unknown"
      },
      "dataType": {
        "id": 5,
        "name": "datetime",
        "description": "A date with / or time",
        "systemType": "DateTime"
      }
    },
    {
      "id": 4,
      "label": "TimeUTC",
      "description": "",
      "isOptional": true,
      "unit": {
        "id": 12,
        "name": "none",
        "description": "",
        "dimension": {
          "name": "dimensionless",
          "description": "",
          "specification": ""
        },
        "measurementSystem": "Unknown"
      },
      "dataType": {
        "id": 2,
        "name": "double",
        "description": "A real number",
        "systemType": "Double"
      }
    }
  ],
  "ProjectIDs": [
    "INCT - Herbário Virtual da Flora e dos Fungos"
  ],
  "TopologicTypeID": 0,
  "StatusID": 0,
  "LoginID": 0
}

TimeUTC D8C01_1 D8C01_3 D8C01_4 D8C01_5 D8C01_6 D8C02_1 D8C02_3 D8C02_4 D8C02_5 D8C02_6
2017-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2018-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2019-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2020-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2021-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2022-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2023-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2024-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2025-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2026-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2027-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2028-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2029-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2030-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2031-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2032-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2033-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
2034-02-21T12:00:00+12-22-223-3443-434-44-43-4-4
```