

BEXIS 2.10.0 Release Notes 28.11.2016

Re-design of the entire data structure management, drag'n'drop creation of data structures, search, filter, and sorting of variable templates (formerly data attributes)

Re-design of the metadata form to handle more complex schemas, autocomplete on text fields, a minimap for better overview,

Ingesting (Upload) and downloading larger datasets is now much more performant

Improved user feedback (e.g. progress bars on larger operations, tool tips, warning messages)

Improved seed data

I. Software Information

- Name: BEXIS
- Version: 2.10.0
- Application Type: Web Application
- Platform: Windows

II. License Agreement

The contents included in this software are licensed to you, the end user. Your use of BEXIS software is subject to the terms of an End User License Agreement (EULA) accompanying the software and located in the \License subdirectory. You must read and accept the terms of the EULA before you access or use BEXIS software. If you do not agree to the terms of the EULA, you are not authorized to use BEXIS software.

III. System Requirements

- Operating System: Windows Server 2008 or 2012. For personal or small installations, the software is able to run on Windows 7 too
- Application Server: IIS 7.0 +. For IIS settings see the installation manual
- DBMS:
 - IBM DB2 Express C 10 (version 10.1.2) 32 or 64 bits. BEXIS has not been tested on other versions!
 - PostgreSQL: (version 9.3) 32 or 64 bits. BEXIS has not been tested on other versions!
- Dependencies
 - Microsoft.NET Framework 4.5.2
 - Microsoft.ASP.NET.MVC 5.2.3
 - Microsoft.ASP.NET.Razor.de 3.2.3
 - Microsoft.ASP.NET.WebHelpers 3.2.3
 - Microsoft.ASP.NET.WebPages.WebData 3.2.3
 - Microsoft.JQuery.Unobtrusive.Validation 3.0.0
 - Lucene.Net 3.0.3

- Lucene.Net Contrib 3.0.3
 - NHibernate 4.0.4.4000
 - Telerik MVC Extensions 2013.1.611
 - Unity Application Block 3.5.1404
 - Npgsql 2.2.5
 - PostSharp 4.1.21
 - Linq 1.0.4
 - bootstrap 3.3.5
 - bootstrap-slider 5.0.13
 - FluentBootstrap 3.3.5.1
 - FluentBootstrap.Mvc 3.3.5.1
 - font-awesome 4.4.0
- Disk Space:
 - The Software: 30-40 MB
 - The Workspace: 10 MB and more, based on the number of modules and the amount of data

IV. Installation

To install the software, please follow the instructions in the BEXIS291_Installation_Manual.pdf.

V. System Functionality

The software consists of two main types of components; 1) core components that include Data Lifecycle Management (DLM), Web Interfaces, Security and some other internally used ones. 2) A collection of coherent features and use-cases bundled as modules so that each module is designed around one or a small set of steps of the DLM workflow i.e., Data Submission, Quality Control/ Assurance, Data Publication and so on.

a) General Application Features

General Application features are available in the entire application and across all modules.

Existing Features

- Online Help for each module now available within the application (version 2.7.0)
- Upon registration users need to agree to terms and conditions (placeholder) (version 2.9.0)

New Features

- NA

Changed/ Enhanced Features

- NA

Dropped Features

- NA

Fixed Issues

- NA

Breaking Changes

- NA

Known Issues

- NA

b) Data Discovery Module

The main purpose of this module is to enable users to search for data available within the system. The module executes user defined queries against the metadata and primary data and provides advanced features such as facets, keywords, categories, filters, grouping, and sorting. Depending on individual user permissions the system provides access to full metadata records, the underlying data structure and the primary data.

Existing Features

- Discover data using metadata dimensions (aspects, facets) and attributes (version 2.0.0)
- Configure search module through a user interface (version 2.1.0)
- Primary data search (version 2.4.0)
- mapping Lucene fields to multiple Metadata Nodes in the Search Component Manager (version 2.5.0)
- The homepage contains a list of accessible dataset (version 2.6.0)
- Edit metadata of an exiting dataset from the Show Details page (version 2.8.0)
- Metadata view was not available for non-authenticated users (public datasets) (version 2.8.0)
- some metadata entries in complex metadata schemas were not shown correctly (version 2.8.0)
- the search index is now re-created automatically whenever a new dataset is created or deleted (version 2.9.0)
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New Features

- Bundle a dataset (version 2.10.0)

Changed/ Enhanced Features

- Improved presentation of the metadata form (version 2.10.0)

Dropped Features

- NA

Fixed Issues

- NA

Breaking Changes

- NA

Known Issues

- NA

c) Data Collection Module

The purpose of the data collection module is to allow users to submit data alongside with metadata. The module processes the data in accordance with its data/metadata structure rules to find any inconsistencies and communicates with the user to overcome the issues. The module may also notify or trigger other internal services such as the search indexing engine to make the dataset ready for discovery. Based on the settings of the associated research context/ plan, datasets get versioned.

Existing Features

- Uploading an Excel file (version 2.1.0)
- Uploading a delimited file (CSV, TSV), (version 2.2.0)
- Adding data to an existing dataset (version 2.2.0)
- Create Structured Dataset (version 2.3.0)
- Create Unstructured Dataset (version 2.4.0)
- Push big files to server (version 2.4.0)
- Importing metadata schemas via XSD files (version 2.6.0)
- The Create Dataset Wizard has been changed to cope with varying metadata structures. (version 2.6.0)
- using a dataset as a template for a new dataset (version 2.9.0)
- import of existing metadata of the same metadata structure from an XML file (version 2.9.0)
- Selecting a data/metadata structure in dataset creation work now also with large quantities of these entities
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New Features

- Add metadata structure management (version 2.10.0)

Changed/ Enhanced Features

- NA

Dropped Features

- NA

Fixed Issues

- NA

Breaking Changes

- NA

Known Issues

- Empty rows within or at the end of Excel or CSV files lead to validation errors and should be removed (by the user) before adding (i.e. uploading) data to a dataset.

d) Data Planning Module

The purpose of the data planning module is to manage (create, edit, delete) data and metadata structures, data attributes (variables), units, data types and their relations. The aim is to foster reuse and data integration while retaining flexibility.

A conceptual model showing the connection and relationship between the different terms and entities is available at: <http://fusion.cs.uni-jena.de/bppCM/index.htm>

Existing Features

- Data structure manager (version 2.1.0)
- Data attribute manager (version 2.1.0)
- Data type manager (version 2.1.0)
- Unit manager (version 2.1.0)
- Unstructured data structures (version 2.4.0)
- Create copy of a data structure (version 2.5.1)
- Creating units without a data type assigned to it is no longer possible (version 2.6.0)
- In data type creation, more information is provided on available system types (version 2.6.0)
- In-line editing for name and description of a data structure (version 2.6.0)
- Data Attributes and Variables can now have constraints (e.g. list of domain values, data ranges, and patterns as regular expressions)(version 2.7.0)
- Units can now contain a dimension specification (e.g. Length, Mass, Time)(version 2.7.0)
- Variables can have individual units of the same dimension (e.g. mm, cm, m, km) independent from their corresponding Data Attribute (version 2.7.0)
- The header in downloaded Excel Templates is now locked to avoid accidental editing, which causes errors in the upload process later on (version 2.7.0)
- In the Data Attribute Manager constraints could not be deleted (version 2.8.0)
- After deleting a dataset, its data structure refers to the dataset id=0 (version 2.8.0)
- Patterns of various date/time formats on data types (version 2.9.0)

New Features

- NA

Changed/ Enhanced Features

- Redesign data structure manager (version 2.10.0)

Dropped Features

- NA

Fixed Issues

- NA

Breaking Changes

- NA

Known Issues

- If macros are disabled in Excel, the downloaded Excel template is not being validated in Excel. This also leads to the issue that only the first row is being imported when submitting a dataset to BEXIS using such a template.

e) Data Dissemination Module

The main purpose of this module is to provide users with access to primary data and metadata managed by the system. In the future this module shall also provide support for publishing, orchestrating and harvesting data of the system by external resources.

Existing Features

- Primary data download as Microsoft Excel file (version 2.2.0)
- Primary data download as comma or tab separated file (CSV) (version 2.4.0)
- Download of unstructured data (single file, multiple files in ZIP) (version 2.4.0)
- Export of metadata from an internal representation into XML files (version 2.5.0)

New Features

- Prepare Dataset package for publication with GFBio; the package contains the primary data, data structure, metadata and the metadata schema.

Changed/ Enhanced Features

- NA

Dropped Features

- Due to a performance issue with large datasets, the customized download (introduced in version 2.4.0) using filters, sorting and column selection has been disabled. Download of the full dataset is still available.

Fixed Issues

- NA

Breaking Changes

- NA

Known Issues

- NA

f) System Administration Module (former name: SecurityModule)

The System Administration Module (SAM) provides functions for dataset maintenance, system configuration and authentication and authorization management. It is typically only accessible to system administrators or data managers.

Existing Features

- User self-registration (version 2.1.0)
- Users and roles management for an administrator (version 2.1.0)
- Feature security (version 2.2.0)
- Dataset Security (version 2.4.0)
- Sign-On with existing credentials from an external authentication provider (LDAP Service) (version 2.5.0)
- System features and datasets can be made publicly accessible without authentication (version 2.6.0)
- passwords can be changed by users or administrators (version 2.6.0)
- administrators are able to approve, block, or unlock users (version 2.6.0)

- Sessions are properly timed out and users are logged off after a given time and informed (version 2.6.1)
- Inheritance of feature permissions for groups und users has been changed slightly to be more intuitive. (version 2.7.0)
- Internal refactoring: the security module is now part of the System Administration Module. (version 2.7.0)
- Delete/Purge Datasets (version 2.7.0)
- Dataset permissions are not taken into account when deleting/purging from the dataset maintenance area (version 2.8.0)
- assigning groups to users (and vice versa) did not work across multiple pages (paging) (version 2.8.0)
- when a user logged in through single sign on (LDAP) and tried to edit his local BEXIS profile (My Account) an error occurred
- users can set permissions on their own datasets in the dataset view.
- upon registration new users will by default get permissions to use the dashboard and the search

New Features

- Variable template management
- Unit management
- Data type management

Changed/ Enhanced Features

- NA

Dropped Features

- NA

Fixed Issues

- Show versions of a dataset caused a runtime error (reported in version 2.7.0)
- Deleting a dataset caused a runtime error
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Breaking Changes

- NA

Known Issues

- NA

VI. Contact

Help desk:

- Website: <http://bexis2.uni-jena.de>
- Email address: bexis-support@uni-jena.de
- Telephone: +49-(0)3641-948968
- Fax: +49-(0)3641-946302