

# BExIS 2.6.0 Release Notes 20.02.2015

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Based on a number of requests and recommendations from the BExIS community this new release of the BExIS data management application includes the following features and improvements:

Individual system features and datasets can now be made publicly accessible without authentication. So for example, the search could be available for everyone without registration or logging on to the system. Administrators are now able to approve, block, or unlock users (e.g. when the wrong password has been entered too many times). Further, users can now change their password.

System administrators are now able to import custom metadata structures as XSD schemas. The system will automatically create all required data types and forms for metadata entry. We have successfully tested this feature with the full ABCD schema, the basic Dublin Core schema, the GBIF EML profile, and number of other custom profiles.

We have further improved some user interfaces and the general usability. For instance, direct in-line editing of a variable name and description of a data structure are now available. There is also a new personalised page showing all accessible datasets on the homepage of the application.

## I. Software Information

- Name: BExIS
- Version: 2.6.0
- 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.

Note: From version 2.6.0 onwards BExIS is released under the LGPLv3 Licence.

## III. System Requirements

- Operating System: Windows Server 2003 or 2008. 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
  - .NET Framework 4.0, created by Microsoft
  - ASP.NET MVC 3.0, created by Microsoft
  - Lucene.Net 3.0.3, created by Lucene.Net Community
  - Lucene.Net Contrib 3.0.3, created by Lucene.Net Community
  - SharpZipLib 0.86.0, created by ICSHarpCode
  - NHibernate 3.3.3.4001 created by NHibernate Community
  - Telerik MVC Extensions 2012.3.1018, created by Telerik
  - Unity Application Block 2.1.505.2, created by Microsoft
- Disk Space:
  - The Software: 20-30 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 Install\_Manual\_BPP260.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) 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)

#### New Features

- The homepage now contains a personalized page on accessible dataset (based on logged-in user)

#### Changed/ Enhanced Features

- When viewing details of a dataset, the metadata page has been improved to accommodate different metadata schemas

## Dropped Features

- NA

## Fixed Issues

- Primary data search on variable names and string/text fields works again

## Breaking Changes

- NA

## Known Issues

- Facets do not act as expected when names contain special characters (e.g. “-“)

## b) 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)

## New Features

- Importing metadata schemas via XSD files

## Changed/ Enhanced Features

- The Create Dataset Wizard has been changed to cope with varying metadata structures.

## Dropped Features

- NA

## Fixed Issues

- NA

## Breaking Changes

- NA

## Known Issues

- In the Create Dataset Wizard validation has been temporally disabled due to a bug that could not be fixed for this release. Validation will be available in the next release.

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

### c) Security Module

Authentication and authorization of users against the application and modules' functionalities as well as data are main duties of the security module. Defining and managing all security related entities such as users, roles, and permissions are also part of this module.

#### 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)

#### New Features

- system features and datasets can now be made publicly accessible without authentication
- passwords can now be changed by users or administrators
- administrators are now able to approve, block, or unlock users

#### Changed/ Enhanced Features

- NA

#### Dropped Features

- NA

#### Fixed Issues

- NA

#### Breaking Changes

- NA

#### Known Issues

- NA

### 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 faster 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>

Note: In previous releases this module was called Research Planning with a much broader scope. The new name now better reflects the actual purpose and the functionality available.

### 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)
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### New Features

- In-line editing for name and description of a data structure

### Changed/ Enhanced Features

- When creating a data type, more information is now provided on available system types

### Dropped Features

- NA

### Fixed Issues

- Creating units without a data type assigned to it is no longer possible

### Breaking Changes

- NA

### Known Issues

- NA

## 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)
- **Customized Download of primary data of structured data (WYSIWYG)** (version 2.4.0)
- **Export of metadata from an internal representation into XML files** (version 2.5.0)

### New Features

- NA

### Changed/ Enhanced Features

- NA

## Dropped Features

- NA

## Fixed Issues

- NA

## Breaking Changes

- NA

## Known Issues

- NA

## VI. Contact

Help desk:

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