BEXIS 2 User Guide

For SPP 2089

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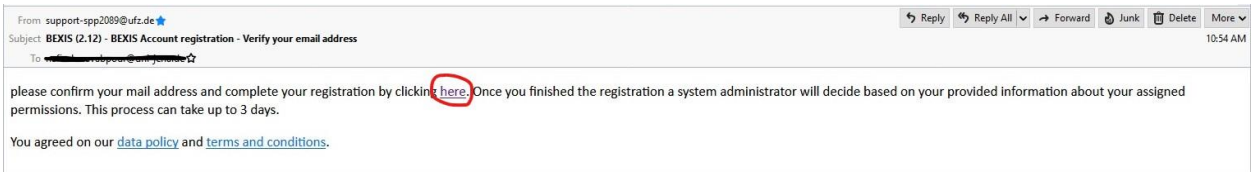
How do I register?

1. Open the BEXIS2 instance from here (or copy and paste “SPP2089.ufz.de:4433” in your internet browser).

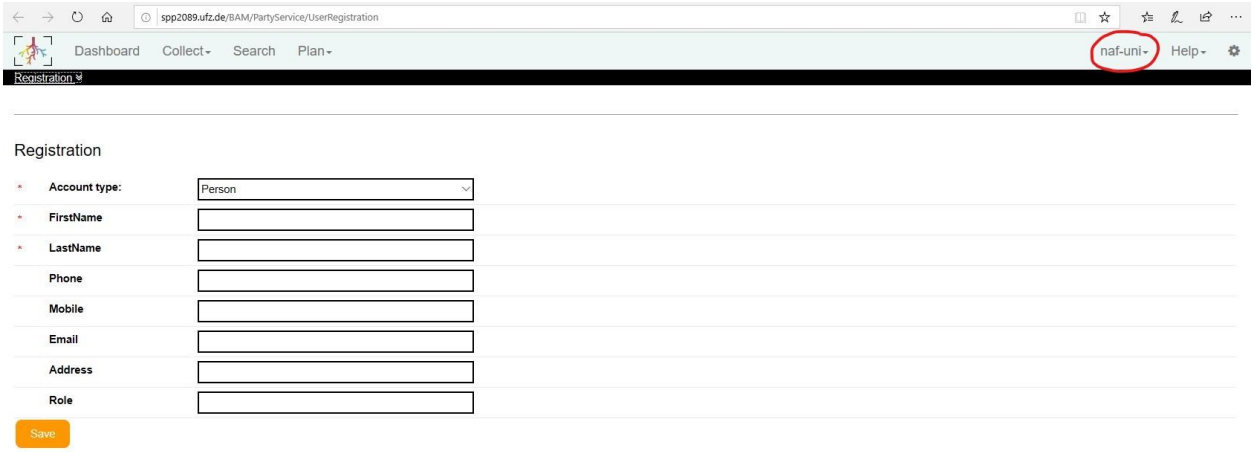
2. Click on the **Register** (Find it in the menu bar, on the right side).

3. Fill the registration form.
   There is no specific password restriction.
   Accept the *Terms and Conditions* and the *Privacy Policy*.

4. Click on orange button **Register**.
5. Open your email address which you entered in the registration formula.
6. Open received email from *support-spp2089@ufz.de*.
   (The title would be “BEXIS (2.12) - BEXIS Account registration - Verify your email address”)
7. Click on the confirmation link.



8. The BEXIS2 instance will open in your default browser. You are seeing your user name on the menu bar in the right side, close the Help.
   Enter your information in the formula.



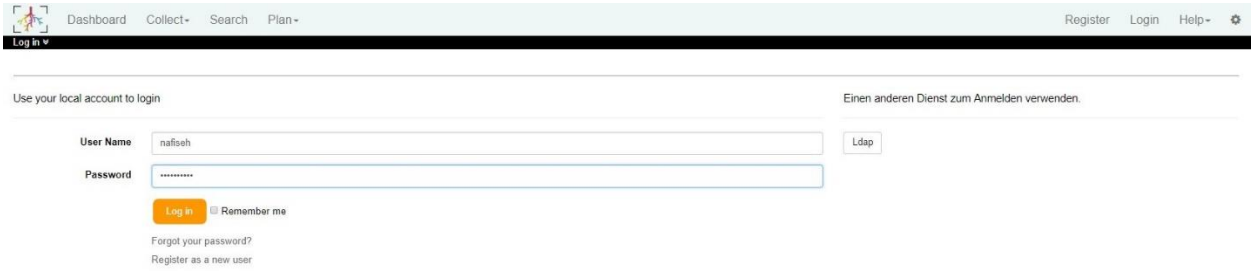
9. Click on orange button **Save**.
10. Looking forward an email from nafiseh.navabpour@ufz.de to inform you about completeness of your registration process.

How do I login?

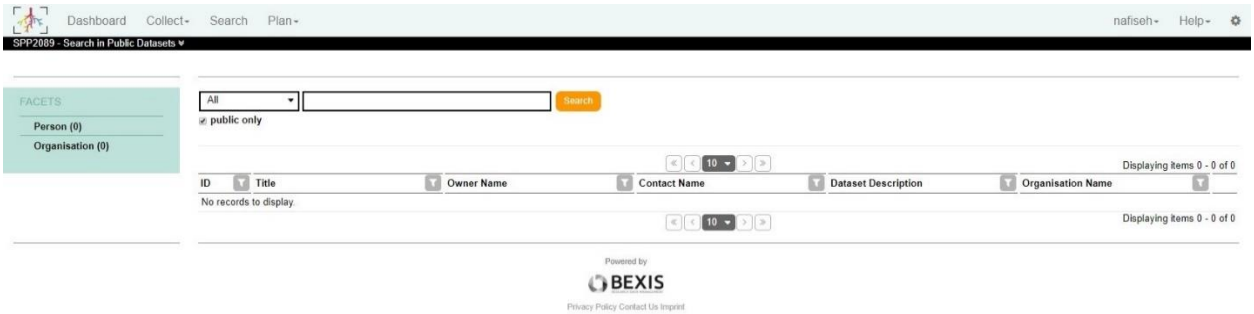
11. Open the BEXIS2 instance from here (or copy and paste “SPP2089.ufz.de:4433” in your internet browser).

12. Click on the **Login** (Find it in the menu bar, on the right side).

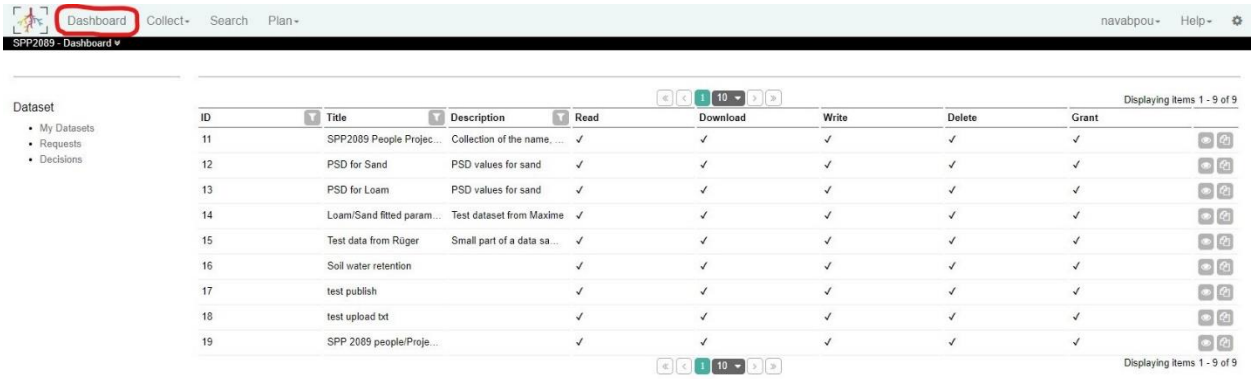
13. Enter your user name and password in the right places.



14. Click on orange button **Log in**.
15. System refers you to the search public datasets.

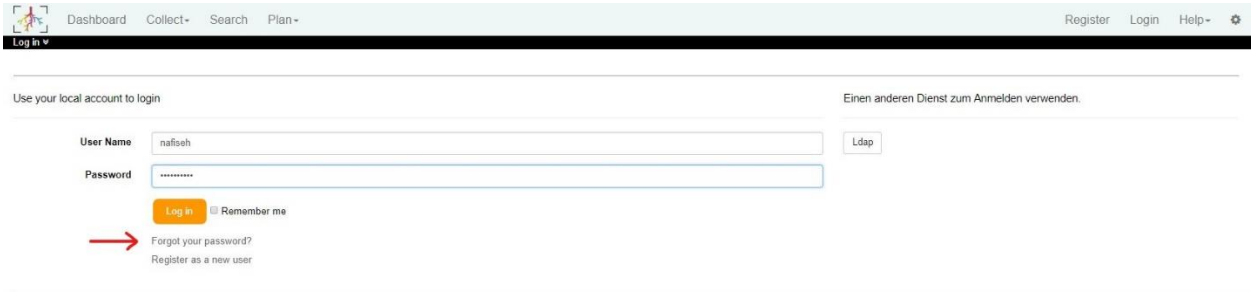


16. Please check your **Dashboard**. If your access to the Dashboard is denied, please contact me (Nafiseh.navabpour@ufz.de).



I forgot my password!

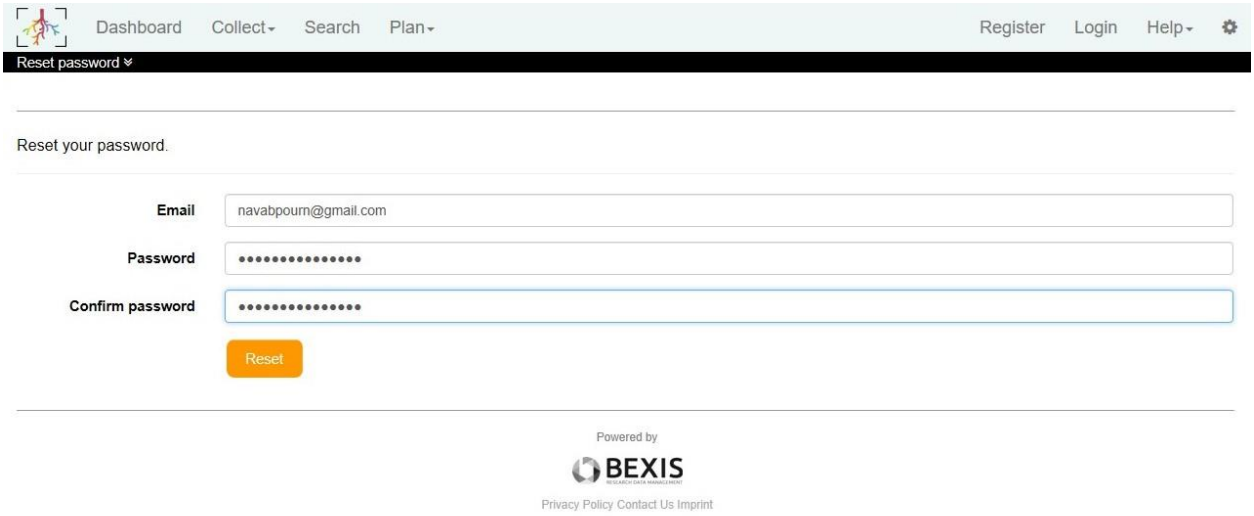
1. Click on the **Forgot your password** in the Login page.



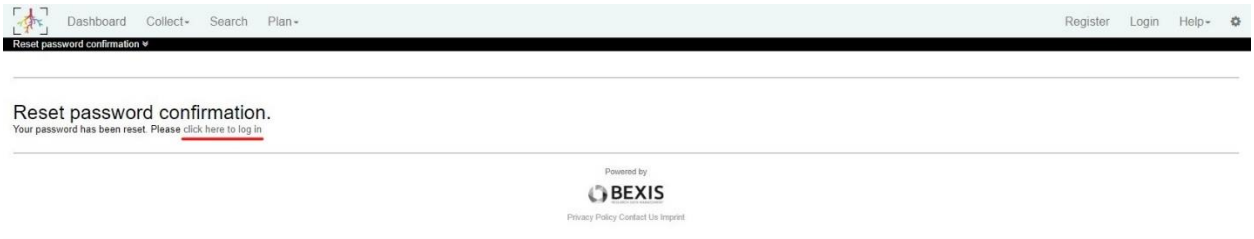
2. In the following page enter your email address you already registered with.

3. Click on the *Email Link* button.
4. Open your email account and find the email from **support-spp2089@ufz.de**.
   The subject should be "BEXIS (2.12) – Reset Password.
5. Click on the link provided in the email for recovering your password.

6. Enter your e-mail address and twice the new password in the following page.



7. Click on orange button **Reset**.
8. A confirmation message will appear. Click on the provided link and log in with the new password.



What does a Data Structure mean?

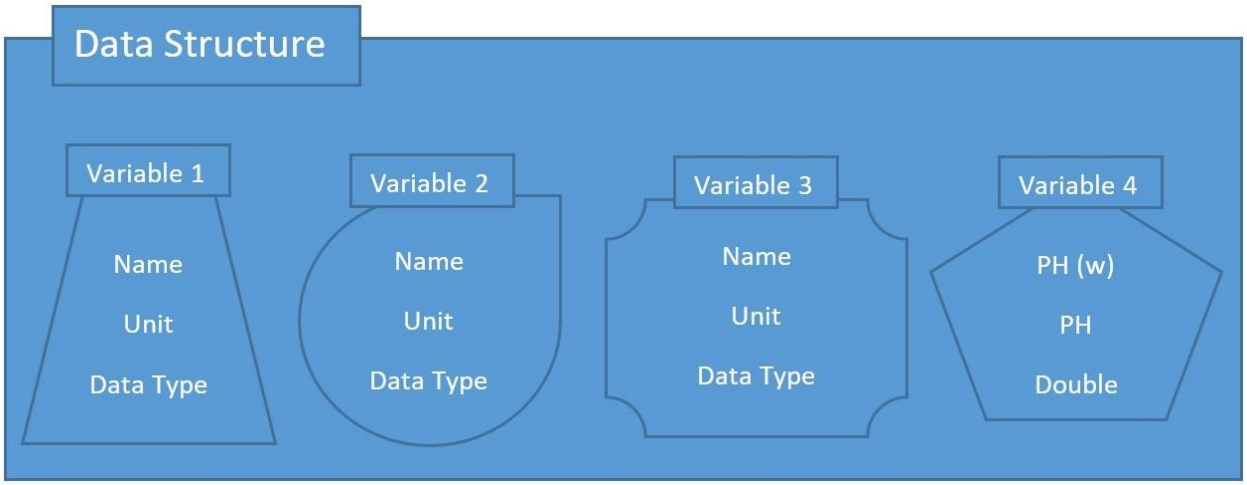
In BEXIS2 data is stored and managed as part of a dataset. A dataset may be anything, e.g. a word document, a zip file, images or a collection of millions of records and multiple variables. The maximum file size per upload is 1G. To store large datasets such as CT images, we have agreed to store only information about the images and their storage in BEXIS2.

Each dataset may have an individual structure of “File” or “Tabular”. A “File” Data Structure makes you able to store your files. The search engine of BEXIS2 provides no indexing for such datasets, but for the “Tabular”. A “Tabular” Data Structure contains one or more Variables based on variable templates. Each Variable is defined by its Unit, a Data Type, and a unique name. So defining Data Types and Units would be the first step which would be done, if they are not available yet.

One example of a **variable template** could be “Variable 4” which is used for the measure of the acidity. PH is the **unit** of variable which is measured as a double number. Double is the **data type** of the variable template. The **variable name** is up to the user. It is “PH (w)” in this example.

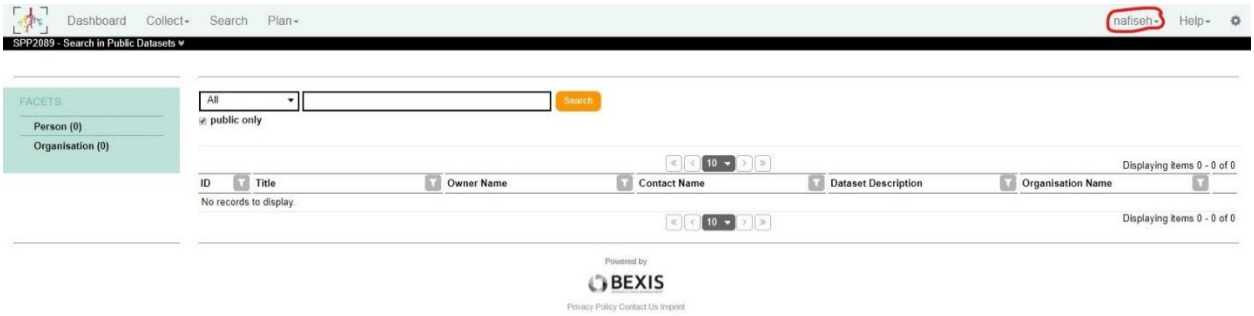
You can edit a Data Structure later. Note that a Data Structure freezes once it is connected to a Dataset. In this case, you must create, edit and associate a copy of the Data Structure with a new dataset.

It make sense to think about creating a Data Structure before collecting data.

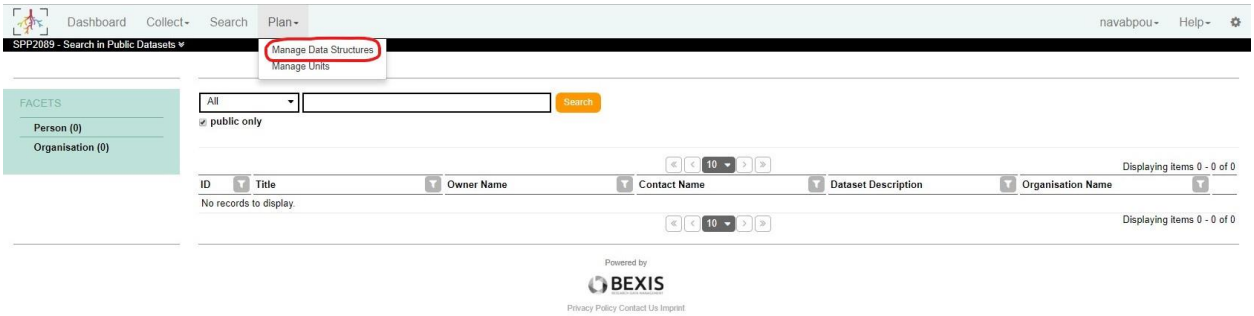


How do I create a Data Structure?

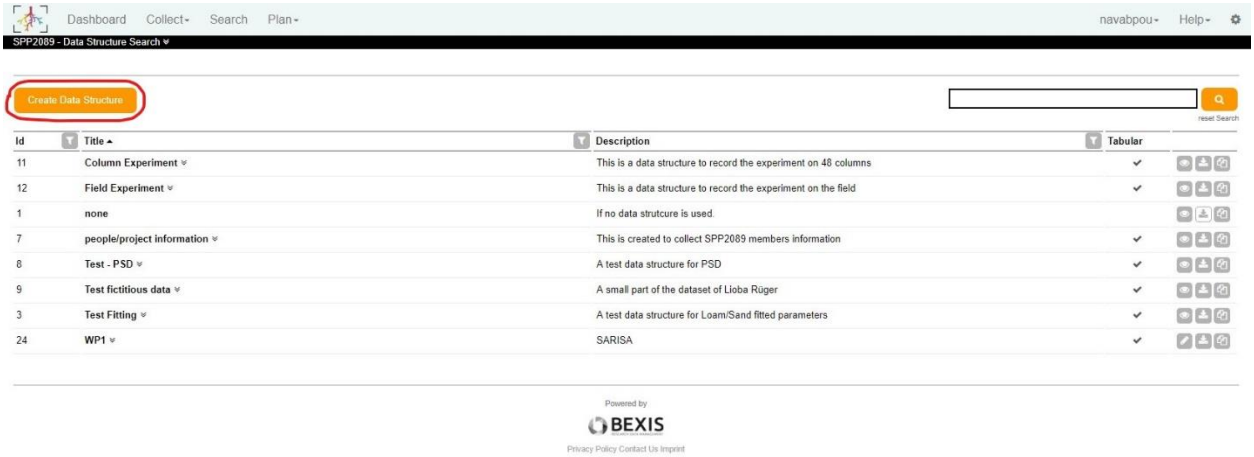
1. Be sure that you are logged in. Check if your username is written close the *Help* menu item.



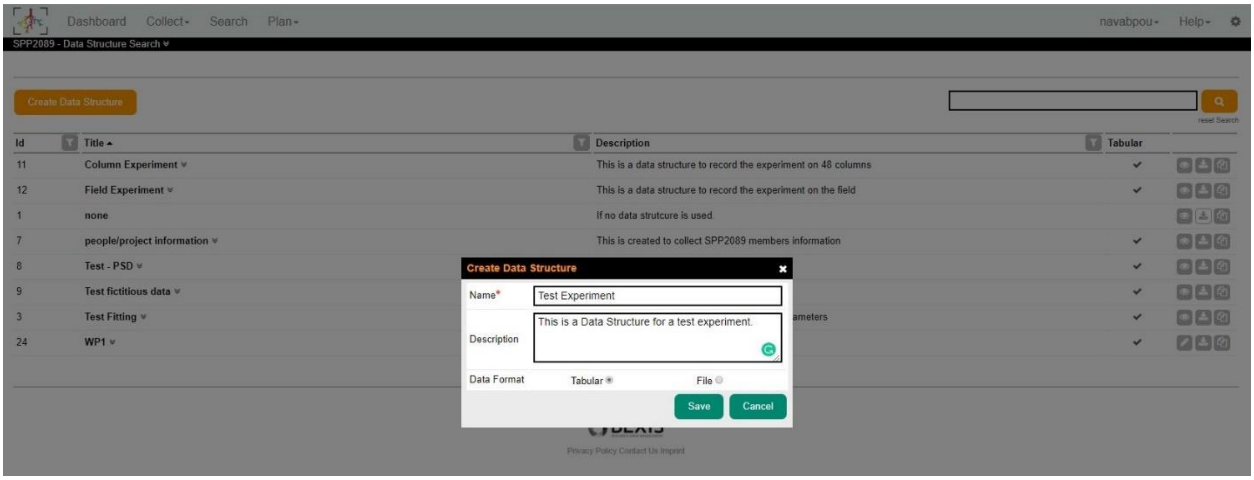
2. Click on **Manage Data Structure** under the **Plan** menu item.



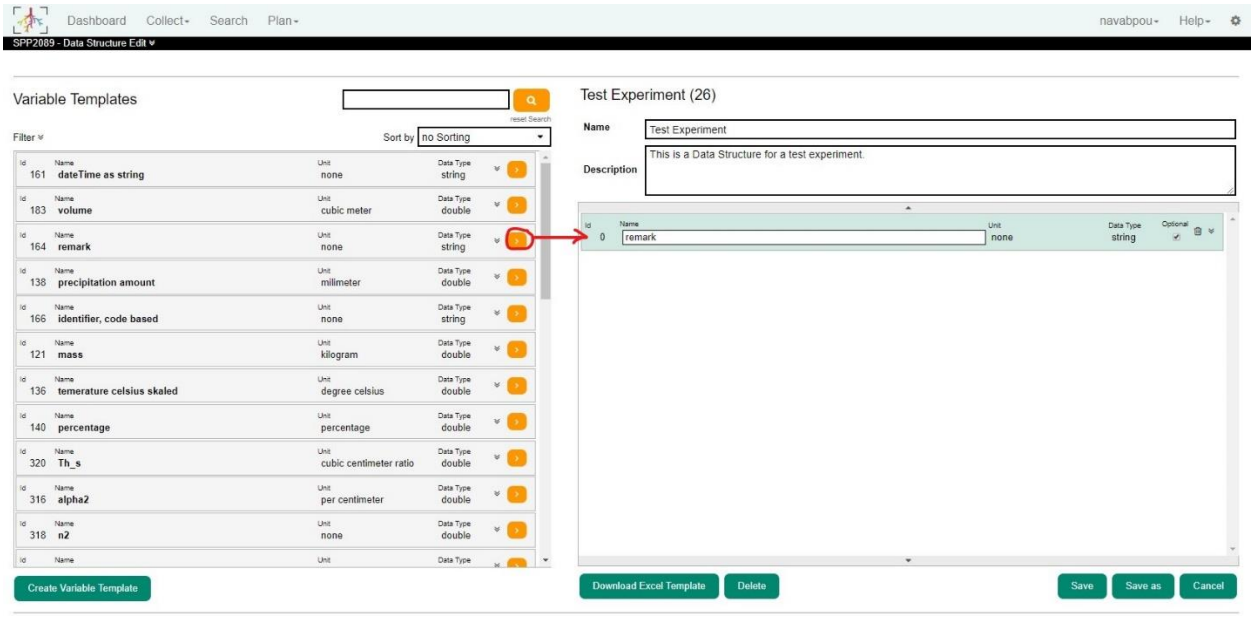
3. Click on the **Create Data Structure** button in the following window.



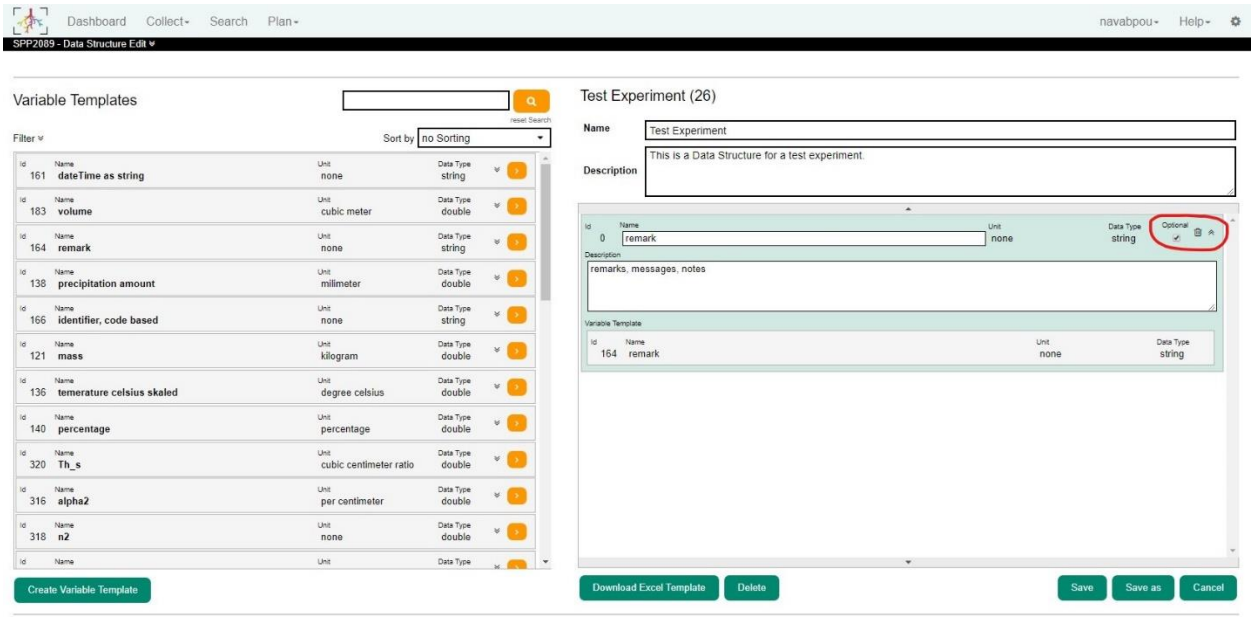
4. Enter a name and a descriptive description for your Data Structure in opened modal window and click on the **Save** button.
   Choose a **Data Format** compatible with your data structure. **Tabular** is for a data table and **File** is for non-structured data.



5. If you have created a Tabular data structure, system refers you to the next page where you are able to build your data structure by adding variables.
   Click on the right arrow close a variable template and add it to your data structure.
   Searching, sorting and filtering are available when you are looking for a variable template.



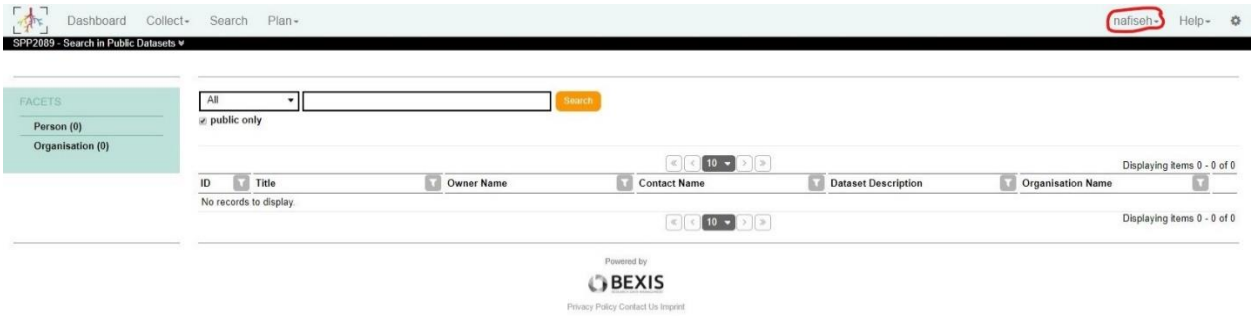
You are able to change the name of a variable in your Data Structure.
Optional variable means that the data table must not contain any data for this variable.
Click on the trash icon to delete the variable from your structure.
Click on the down arrows to have access to edit the description of a variable.



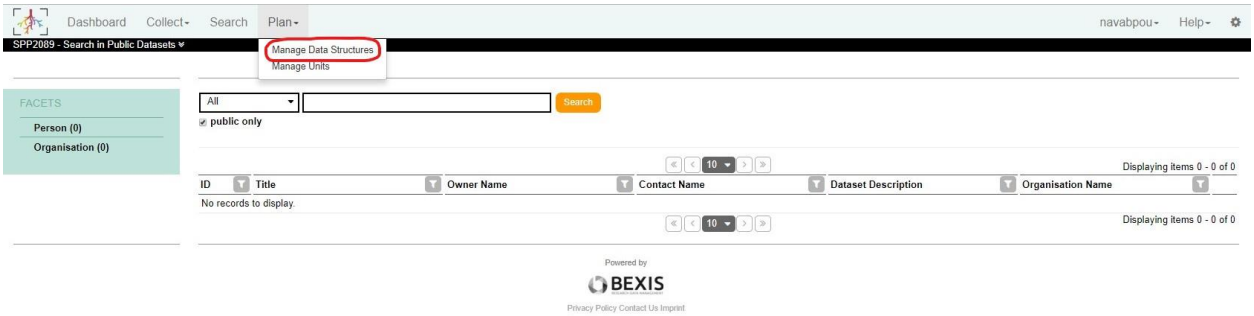
6. Click on the **Save** button to save the data structure.

How do I edit a Data Structure?

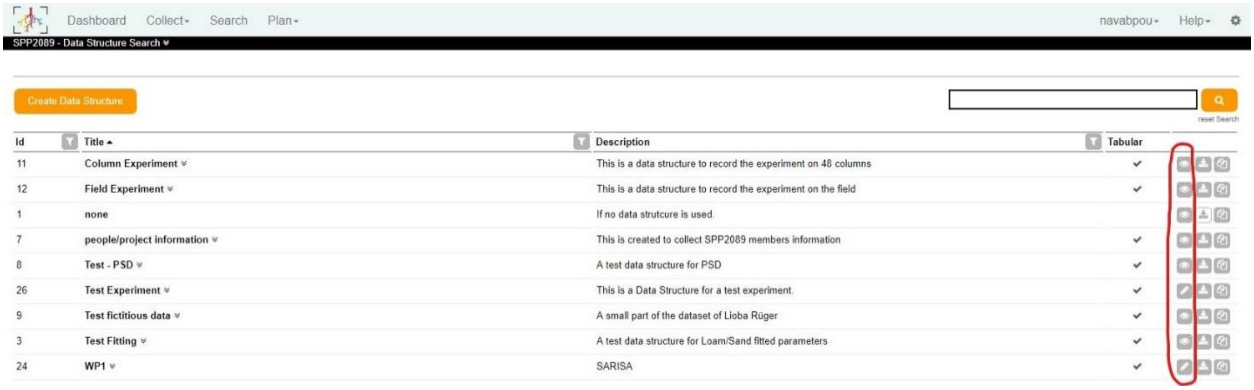
1. Be sure that you are logged in. Check if your username is written close the *Help* menu item.



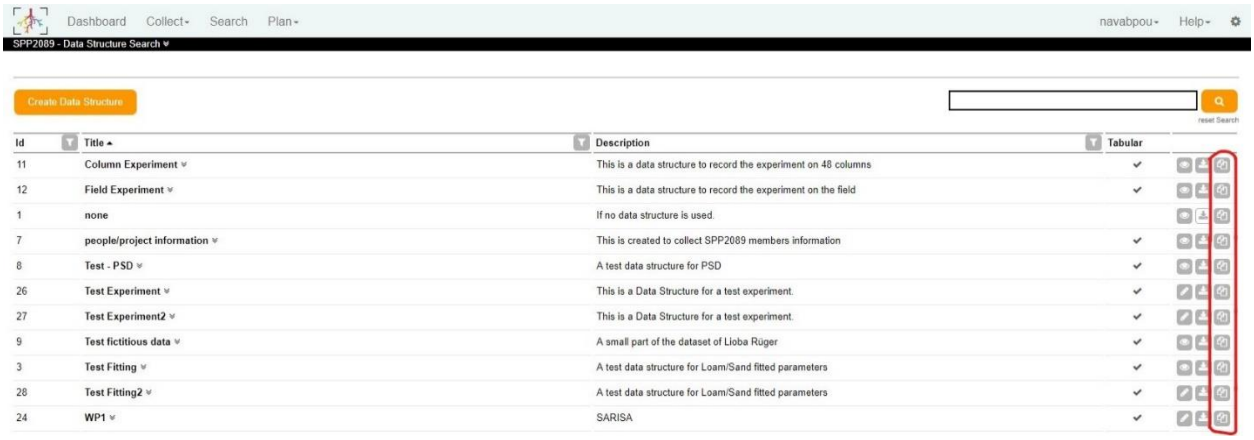
2. Click on **Manage Data Structure** under the **Plan** menu item.



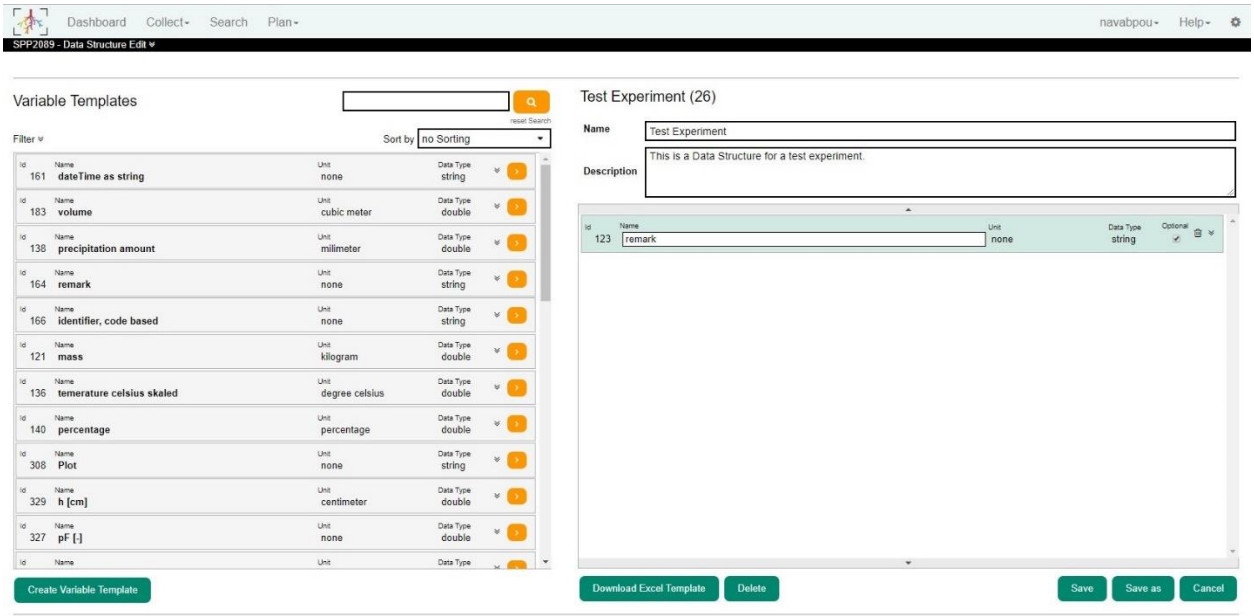
3. In the following page you can see different buttons close data structures.
   The **Eye** means that you are able to edit only the name and the description of a data structure.
   The **Pen** means that you are able to edit the structure in addition.



Note: A data structure is not editable means that it is connected to a dataset.
Clicking the **Copy Data Structure** button next to a data structure creates a copy of the data structure. You should just change the name to be unique.

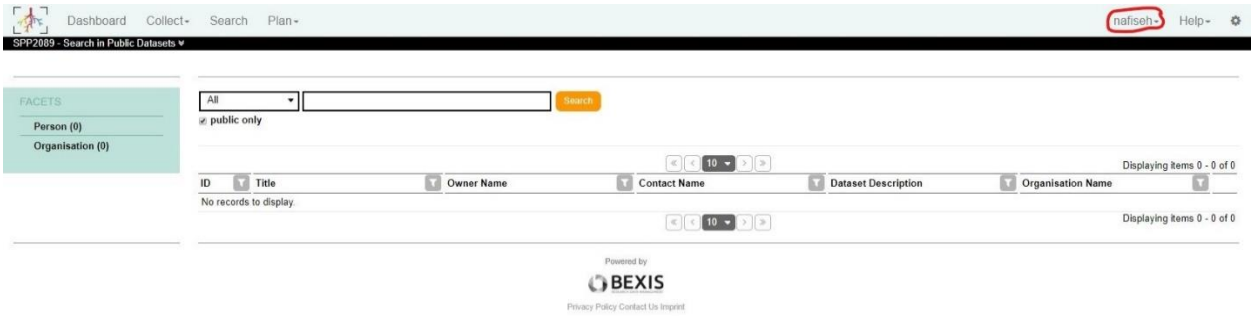


4. Edit the data structure and click on the **Save** button.

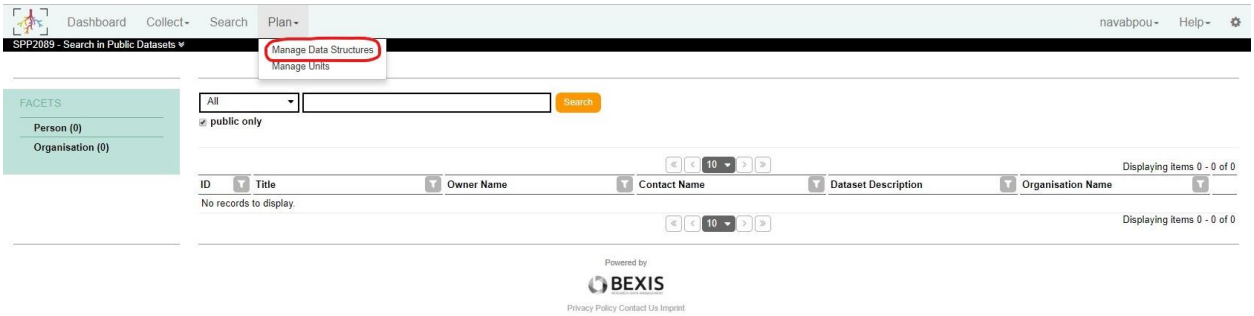


How do I download a Data Structure?

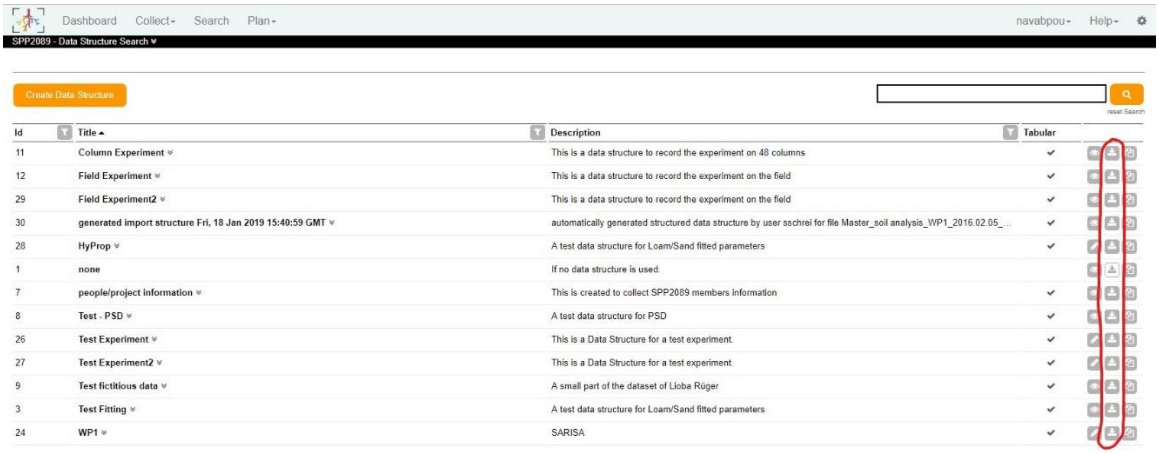
1. Be sure that you are logged in. Check if your username is written close the *Help* menu item.



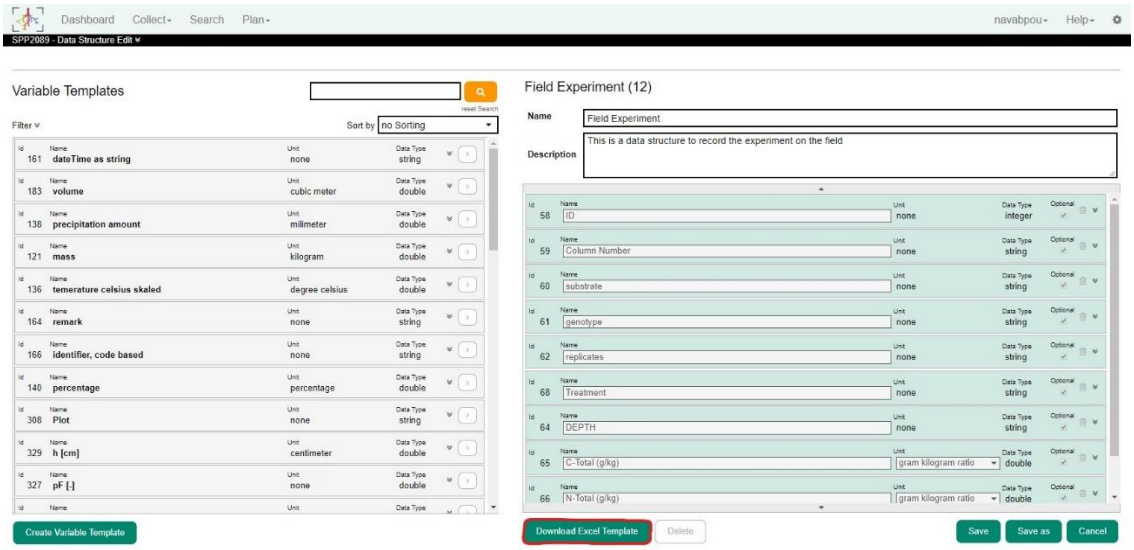
2. Click on **Manage Data Structure** under the **Plan** menu item.



3. You are able to download a Data Structure in two ways.
   a. In the Data Structure management page, click on the **Download** button next to a Data Structure.



   b. In the Edit Data Structure page, click the **Download Excel Template** button. BEXIS2 creates an Excel Template from the current Data Structure.

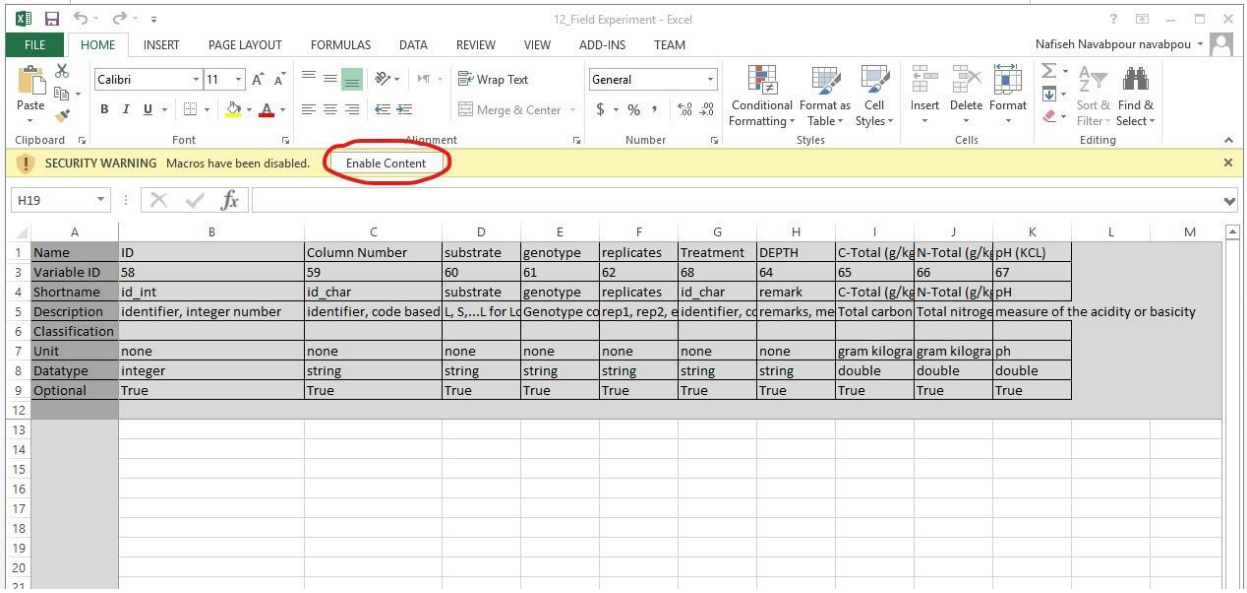


Save the Excel Template to your preferred location on your computer.

How do I work with an Excel Template?

Excel Template is an excel file created by the BEXIS2 based on a Data structure. The header contains information about variables, their units, data types and more. The Excel Template can examine the quality of the data based on the Data Type and Optional definition.

To work with an Excel Template, You must first enable macros. Macros automate frequently-used tasks, in our case quality control of the data table. Enabling or disabling macros varies depending on the version of Microsoft you are using. Macro security settings are generally located in the *Trust Center*.



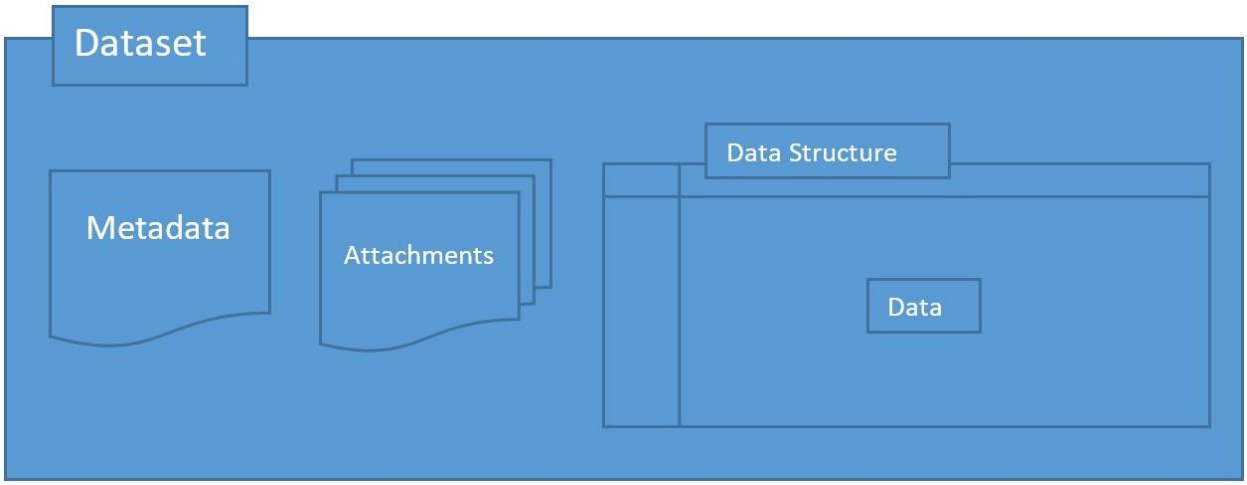
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Name	ID	Column Number	substrate	genotype	replicates	Treatment	DEPTH	C-Total (g/kg	N-Total (g/kg	pH (KCL)		
3	Variable ID	58	59	60	61	62	68	64	65	66	67		
4	Shortname	id_int	id_char	substrate	genotype	replicates	id_char	remark	C-Total (g/kg	N-Total (g/kg	pH		
5	Description	identifier, integer number	identifier, code based	L, S,...L for Lo	Genotype co	rep1, rep2, e	identifier, co	remarks, me	Total carbon	Total nitroge	measure of the acidity or basicity		
6	Classification												
7	Unit	none	none	none	none	none	none	none	gram kilogra	gram kilogra	ph		
8	Datatype	integer	string	string	string	string	string	string	double	double	double		
9	Optional	True	True	True	True	True	True	True	True	True	True		
12													
13													
14													
15													
16													
17													
18													
19													
20													

What does a Dataset mean?

A dataset may be anything from a single record up to a collection of millions of records and multiple variables.

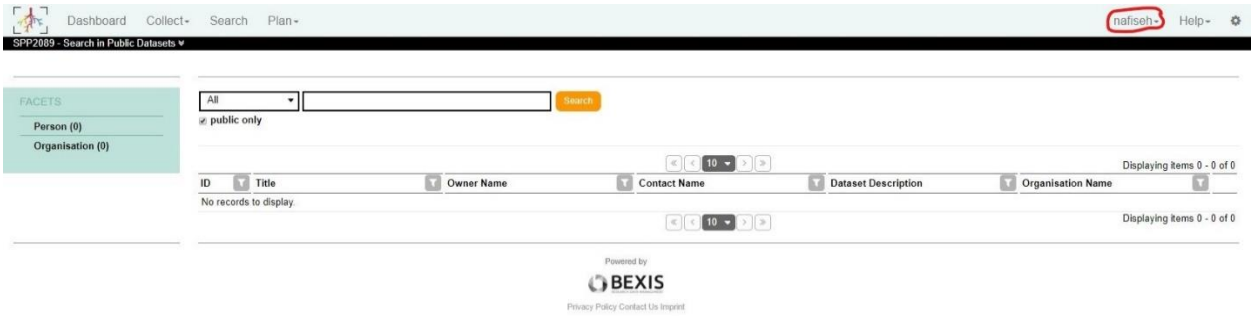
Each dataset may have an individual structure given by the number of variables and their properties.

In BEXIS2 data is stored and managed as part of a dataset.



How do I create a Dataset?

1. Be sure that you are logged into the BEXIS2 data management system. Check if your username is written close the *Help* menu item.

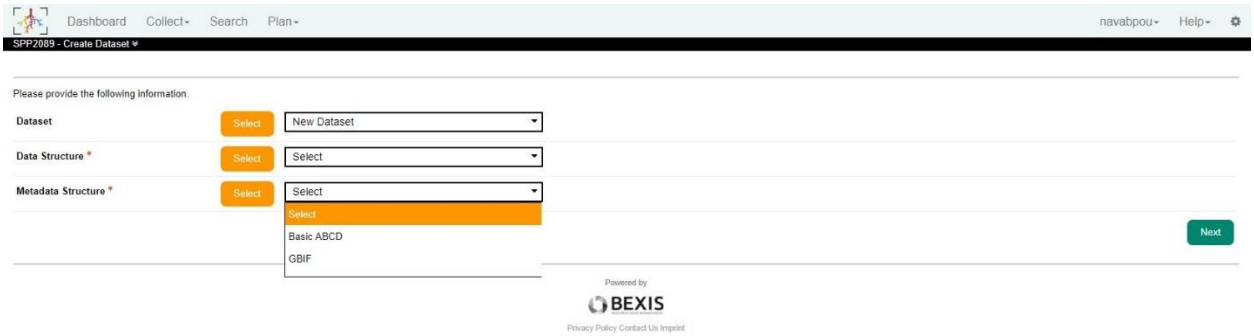


2. Click on the **Create Dataset** under the **Collect** menu item.

3. In the following page select a **new Dataset** if you want to create a new dataset or select an **existing dataset** in the field of **Dataset,** if you want to use the metadata of an existing dataset.

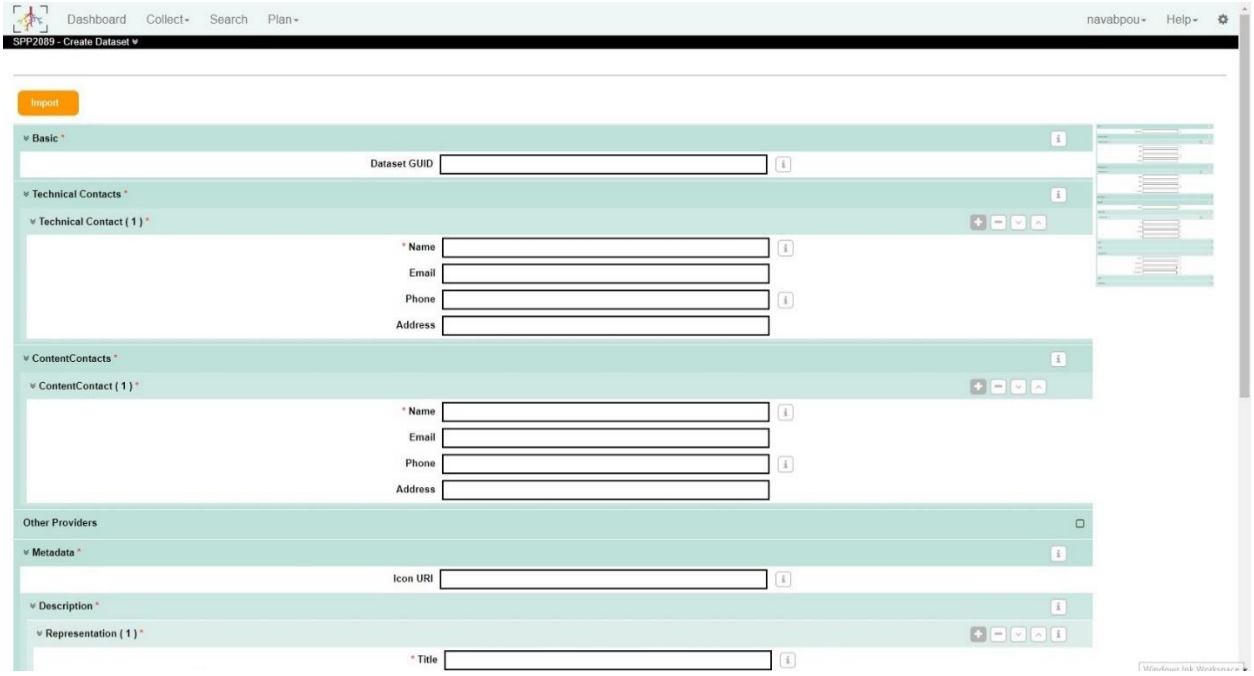
4. Select an existing **Data Structure** for your data table. If you do not yet create a data structure for your data table, first create one (check the introduction of Data Structure).

5. Select a **Metadata Structure**.
   In case you select a copy of another dataset, the metadata structure is pre-selected.
   If you are creating a new dataset, the **Basic ABCD** metadata structure is recommended.



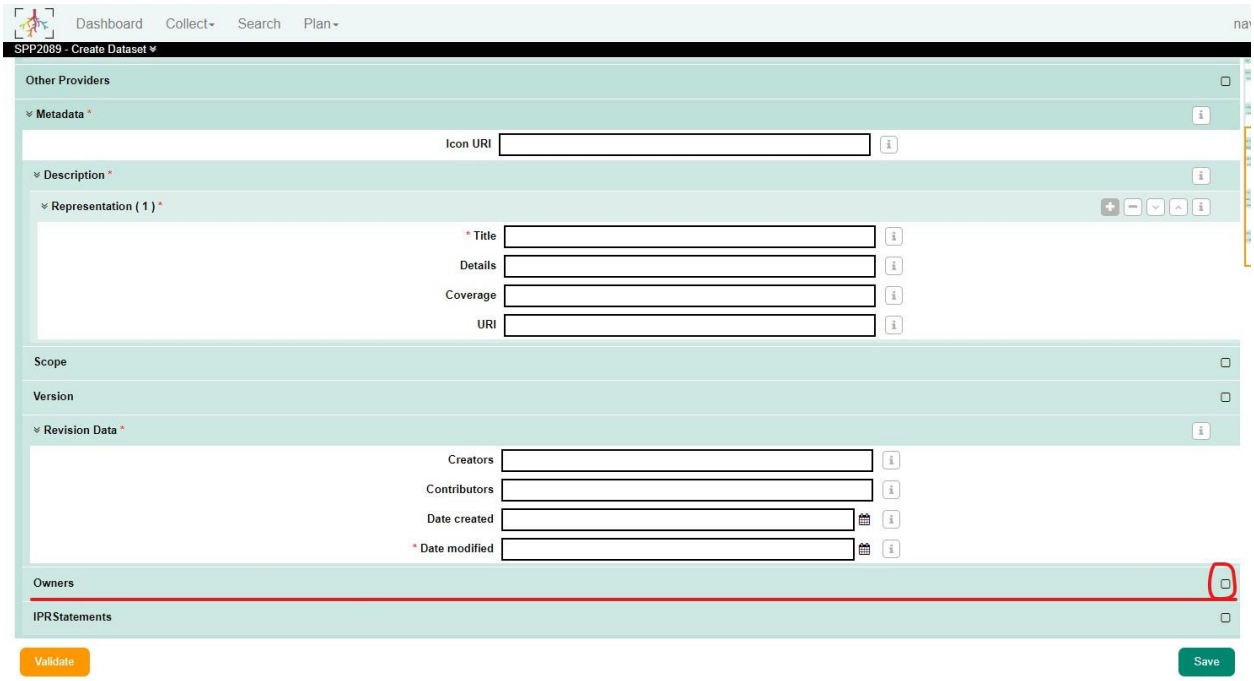
   Click on the **Next** button and system refers you to the Metadata Formula.

6. Fill at least the following fields in the ABCD metadata formula and click on the **Save** button.
   - Technical Contact > Name
   - Content Contact > Name
   - Representation > Title
   - Revision Data > Date modified



   Please note that

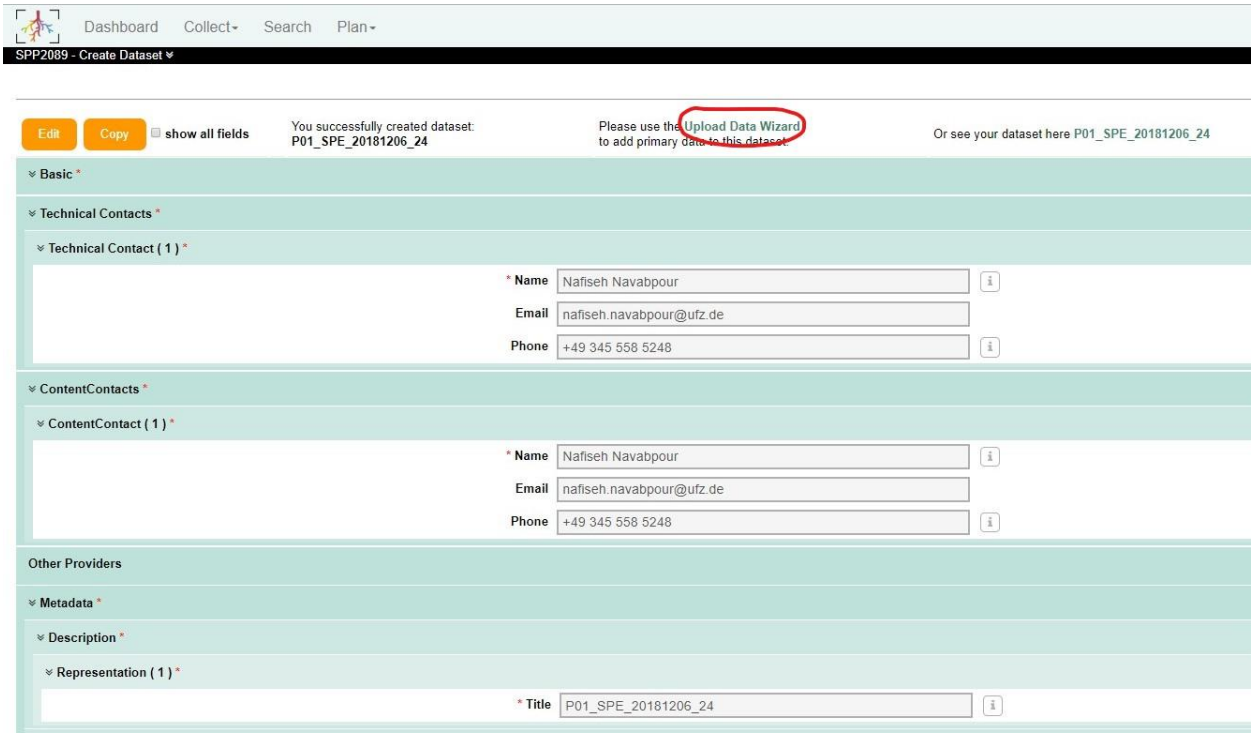
   - When copying a dataset, please change the title.
   - Do not enter a duplicate title.
   - A field marked with a **red star** is mandatory. However, you can save metadata with empty mandatory fields. You just have to ignore the warning.
   - You can later **edit** a metadata formula.
   - To open an info box, mark the small square on the right. Then you see more field underneath.


Dashboard
Collect
Search
Plan
SPP2089 - Create Dataset
Other Providers
Metadata *
Icon URI
Description *
Representation (1) *
* Title
Details
Coverage
URI
Scope
Version
Revision Data *
Creators
Contributors
Date created
* Date modified
Owners
IPRStatements
Validate
Save

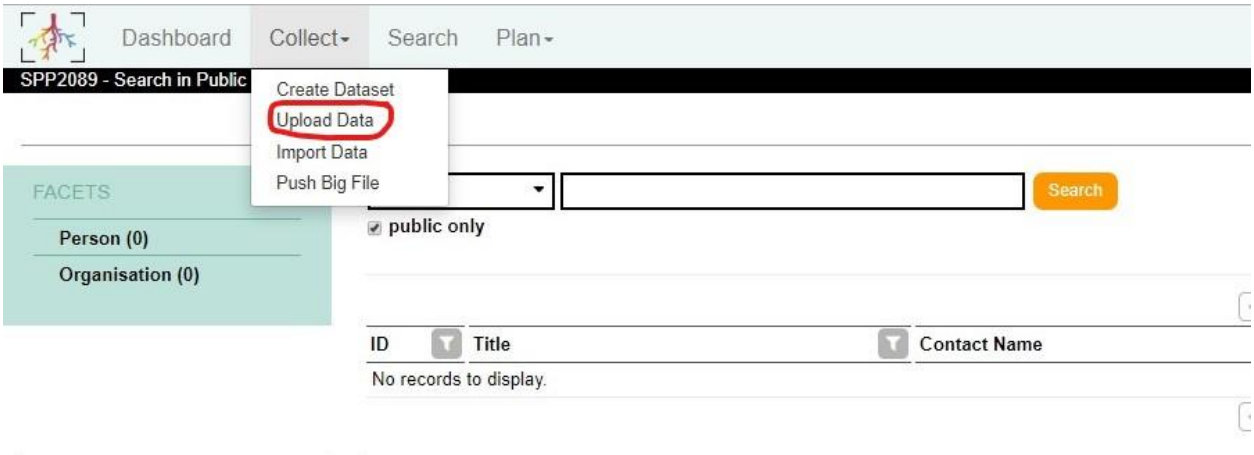
How do I upload data to a dataset?

Primary Data in BEXIS2 system can only upload to an existing dataset.

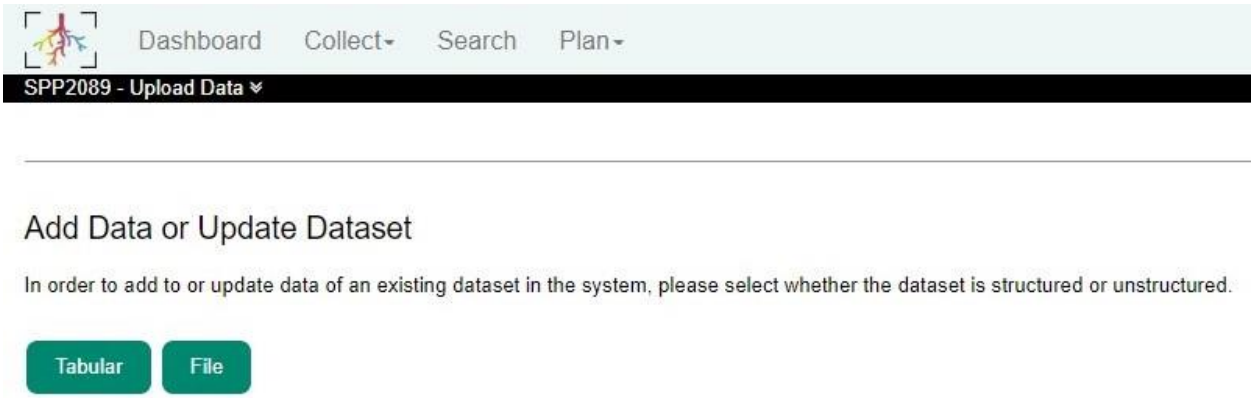
Once a dataset is created, the system provides a link that points you to the upload process. It calls **Upload Data Wizard**.



Another way to upload data is click on **Upload Data** under the **Collect** menu item.



Regarding the type of your data structure, you should choose whether your data is Tabular or File. If you upload data via the Upload Data Wizard, the system jumps up from this step.

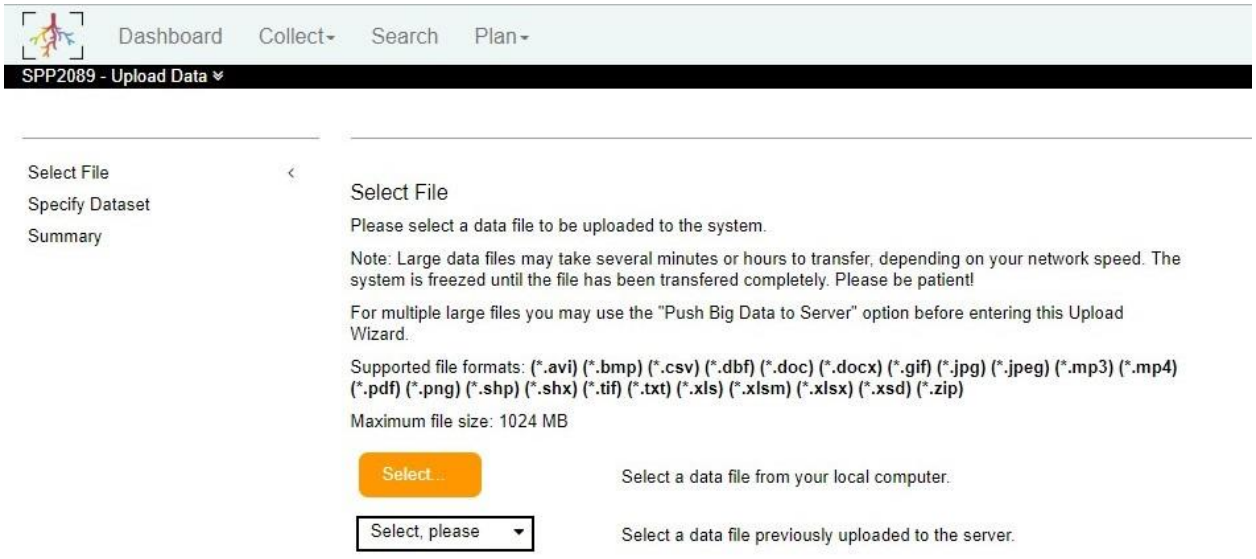


Upload Data – File format

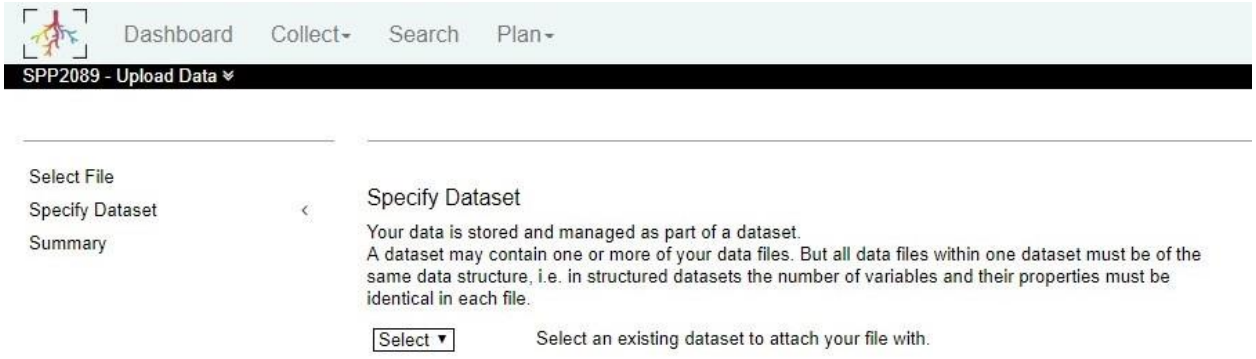
If you save your data as a F**ile**, the search engine could not find the data.

BEXIS2 accepts only defined file formats under 1GB.

1. Select your file and click on the **Next** button.



2. Select an existing Dataset and click on the **Next** button. Note that the dataset is pre-selected through Upload Data Wizard.

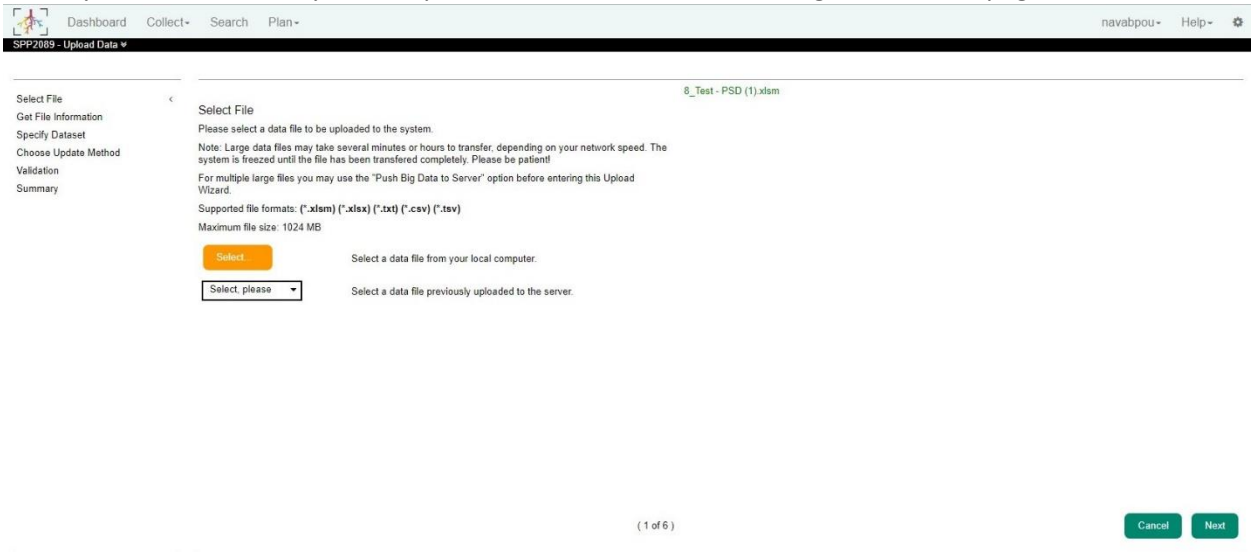


3. On the next page, the system will show you a summary of your upload and the upload process is finished.
4. Click the **Finish** button. System refers you to the **Dataset View**.

Upload Data – Tabular format

Tabular data is structured data. If your data should be available on the search engine, save your data in tabular form. BEXIS2 accepts the file formats XLSM, XLSX, TXT, CSV and TSV in this process.

1. Select your data file from your computer. Click the Next button and go to the next page.

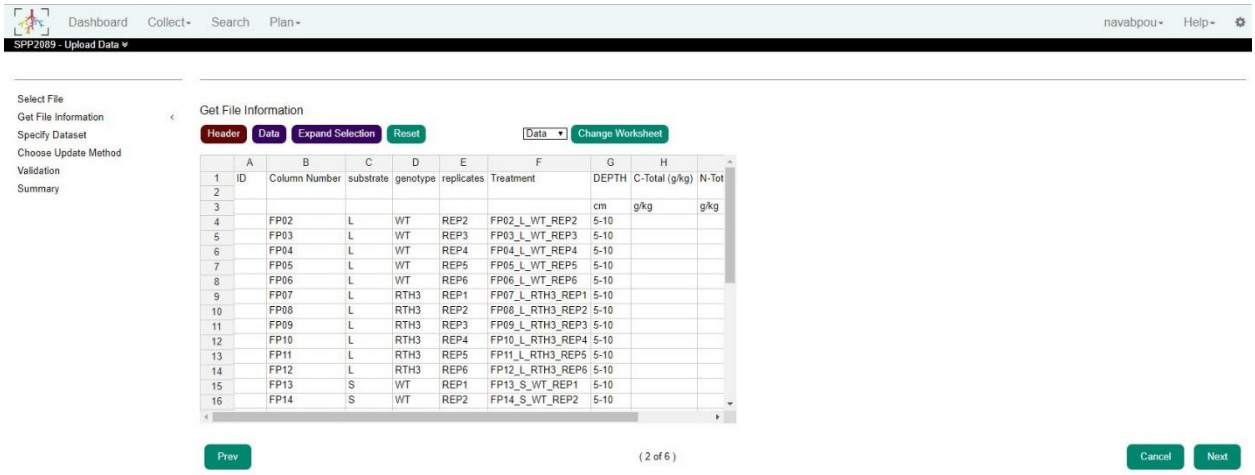


2. This page calls **Get File Information** and it differs depending on the file format.

Upload XLSX

If you have selected a regular Excel file in .xlsx format, the system will point you to a page where you can see your data table. You can change the Excel worksheet if you need.

On this page, you must specify where your column headers (variable names) are and where your data is located.



- First select all variables with the left click on mouse. Then click on the **Header** button.
- Select all data in the same way and click the **Data** button.
- The **Expand Selection** button allows you to expand your selection. If the data table contains many rows, select only the first row of data and click the Expand Selection. The system selects all data to the end.
- Click the **Reset** button if you need, to reset your selection.

If you are sure that header and data are selected, click the **Next** button and go to the next step.

Upload XLSM

If you are working with the **Excel template** that is provided with the BEXIS2 system (Find explanation at the introduction of Data Structure), you are in this way.

By uploading an .xlsm, the **system will skip** the **Get File Information** step.

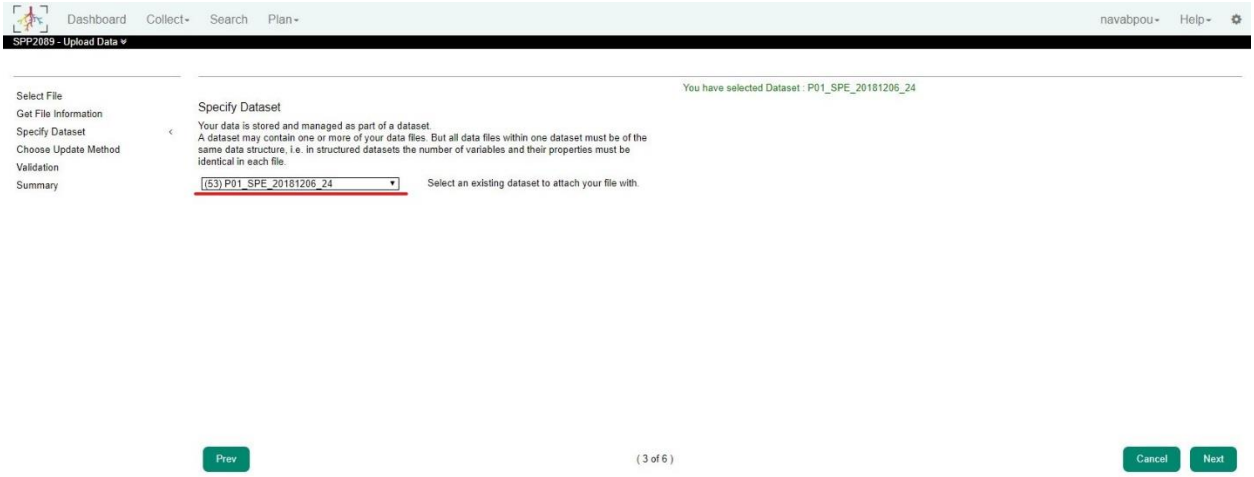
Upload TXT, CSV or TSV

If your data is in a TXT, CSV or TSV format, the system will ask for the following information.

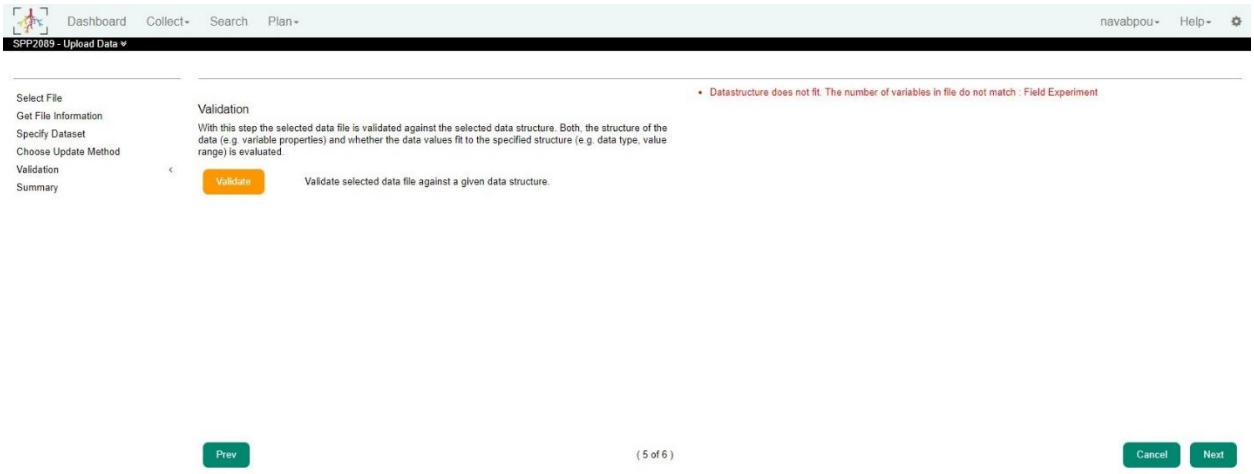
- **Separator**: Is your data separated by a tab, comma, semicolon or space?
- **Decimal**: Have your real data been specified as 3.02 with a dot (point) or 3,02 with a comma?
- **TextMarker**: Did you use quotes or double quotes as text marker?
- **Orientation**: At this point you must specify whether your data is columnwise or rowwise.
    - Data is columnwise when data related to a variable is written to a column.
    - Data is rowwise when data related to a variable is written to a row.
- **Offset**: How many empty columns (in columnwise) or rows (in rowwise) before the variables are specified.
- **Variables**: Row (in columnwise) or column (in rowwise) in which the variables are located.
- **Data**: Row (in columnwise) or column (in rowwise) in which the data starts.

Click on the **Next** button and go to the next page.

3. Specify the dataset, if it is not specified by default. Click on the **Next** button and go to the next page.



4. In this step BEXIS2 system checks if your data table is compatible with the data structure. Click on **Validate** button. In the case of mismatches, red messages will be displayed on the right side and the process will be terminated there. If data in the data structure can fit well, a green message will displayed and you can go to the next page.

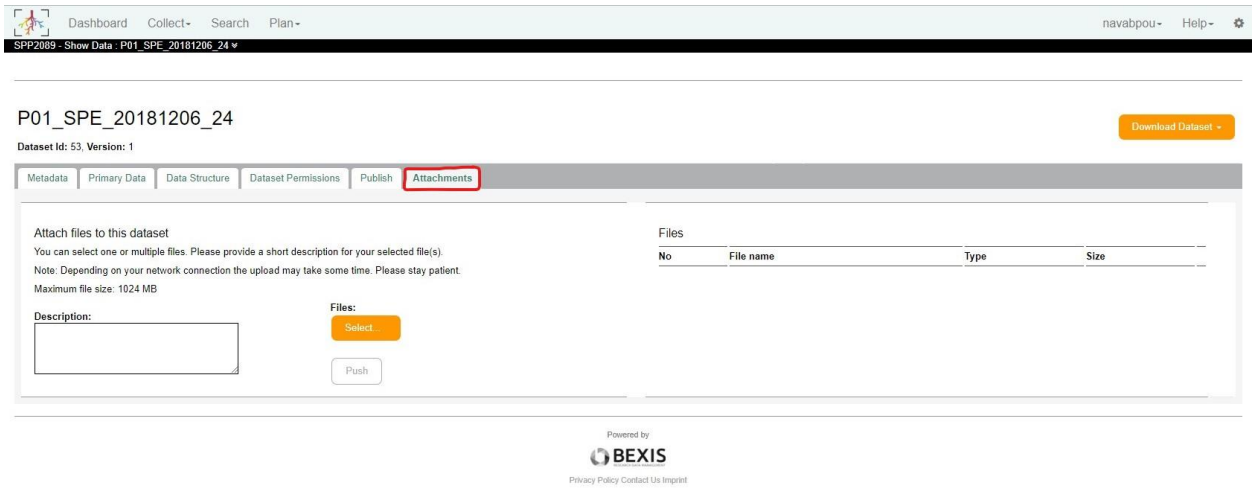


5. On the last page, the upload process is finished and you will see a summary of your upload data.
6. Click the **Finish** button. System refers you to the **Dataset View**.

How do I attach a file to a dataset?

You may need to attach a file of information to your dataset. It could be for example additional images or text files.

1. Select **Attachment** tab on the dataset view.

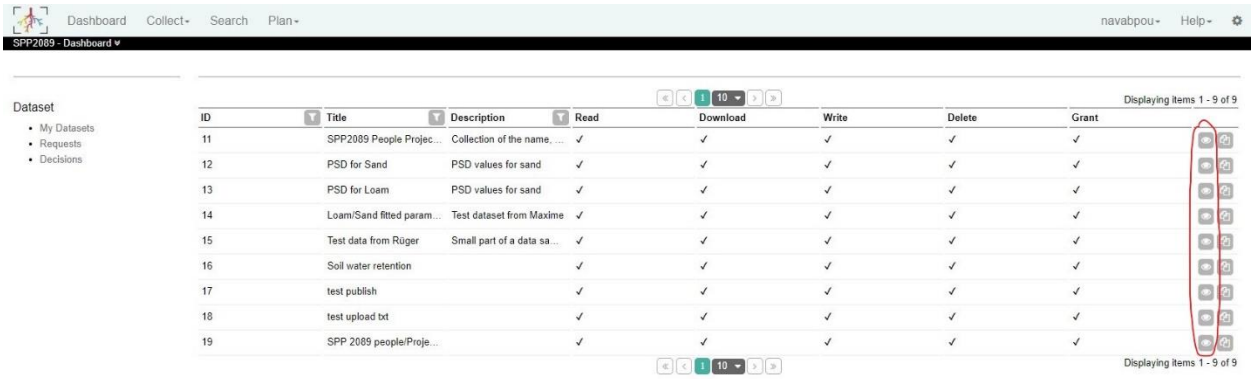


2. Click on the **Select** and choose one or multiple files from your computer. Each file should be smaller than 1GB.
3. Click on the **Push** and the file will attach to your dataset.

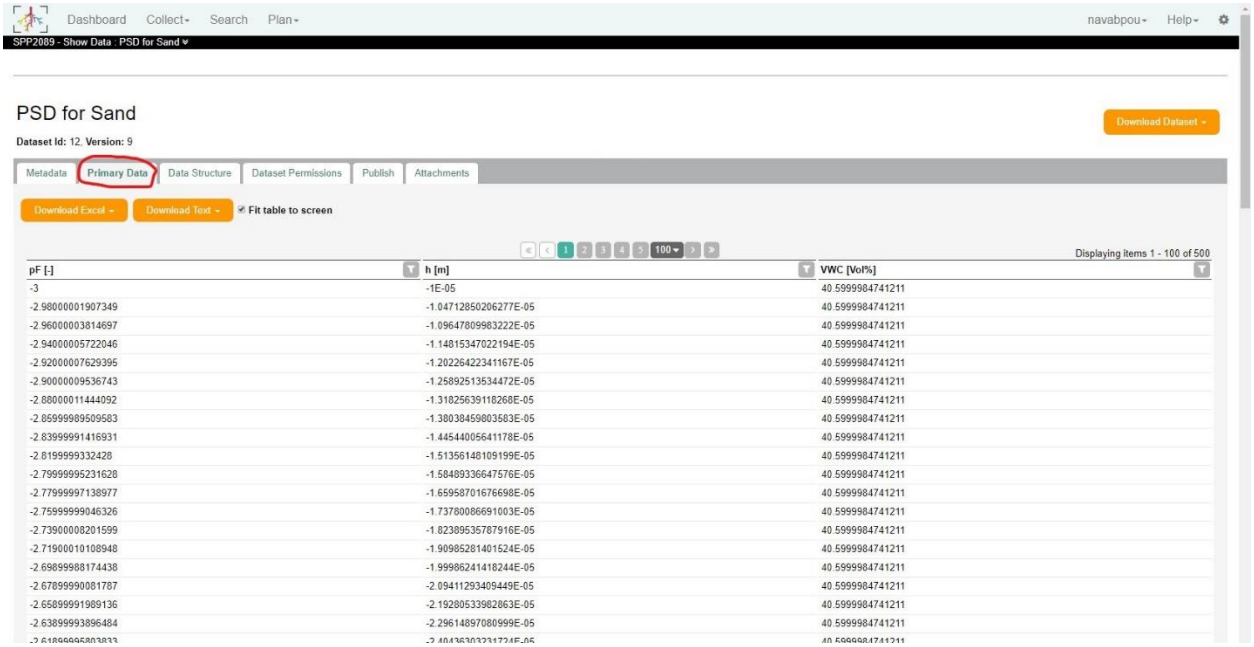
How do I download a dataset?

To **download** a dataset, you need to have the **Read** permission and go through the following steps.

1. Click on the view icon close a dataset. The system refers you to the Dataset View.



2. Open the **Primary Data** tab.



3. Download options are hidden under orang buttons.
    a. **Download Excel**
    Click this button if you want to download an excel format of a dataset with or without header information.

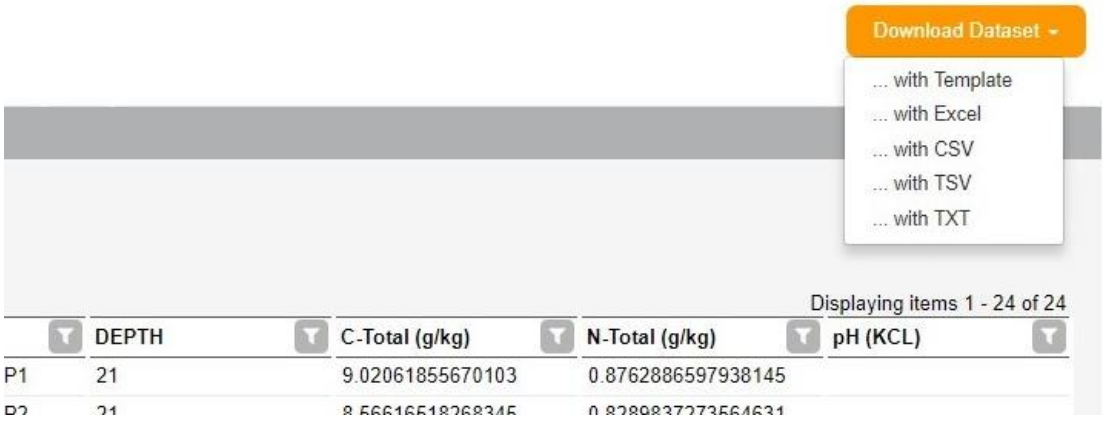
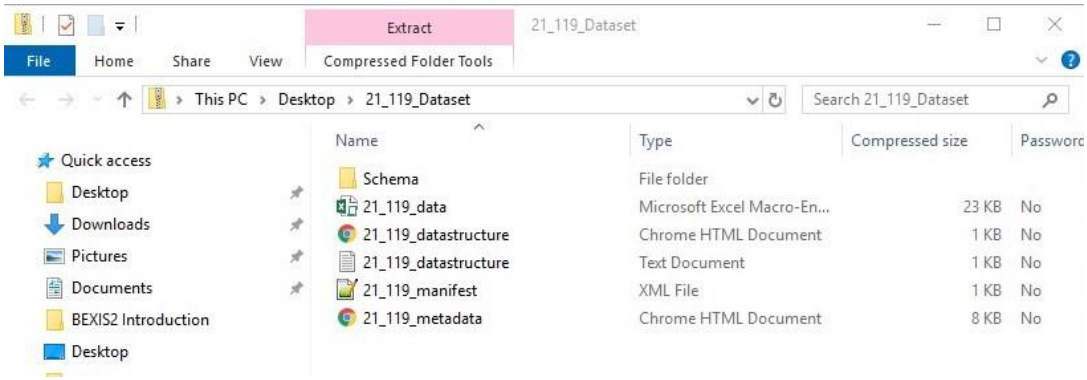
A freezes header in a Template contains a lot of information about variables, including units and data types, while Excel only contains variable names in the header.
See [How do I work with an Excel Template?]

b. **Download Text**

Click this button if you want to download a text format of a dataset. BEXIS2 system offers CSV, TSV, and TXT formats. The CSV format is comma separated, but TSV and TXT format are tab separated.

c. **Download dataset**

Click this button if you want to download data and more information about the dataset in one compressed folder.



You will find your data in your preferred format, two different formats of the metadata structure, two different formats of the data structure and one or more files contain information about the dataset. You do not need this option for normal use.