

New Features from the Exploratories for BEXIS2



Andreas Ostrowski, Michael Owonibi *, Eleonora Petzold **, Pawandeep Kaur ***,
Sirko Schindler ****, Franziska Zander ****, Birgitta König-Ries

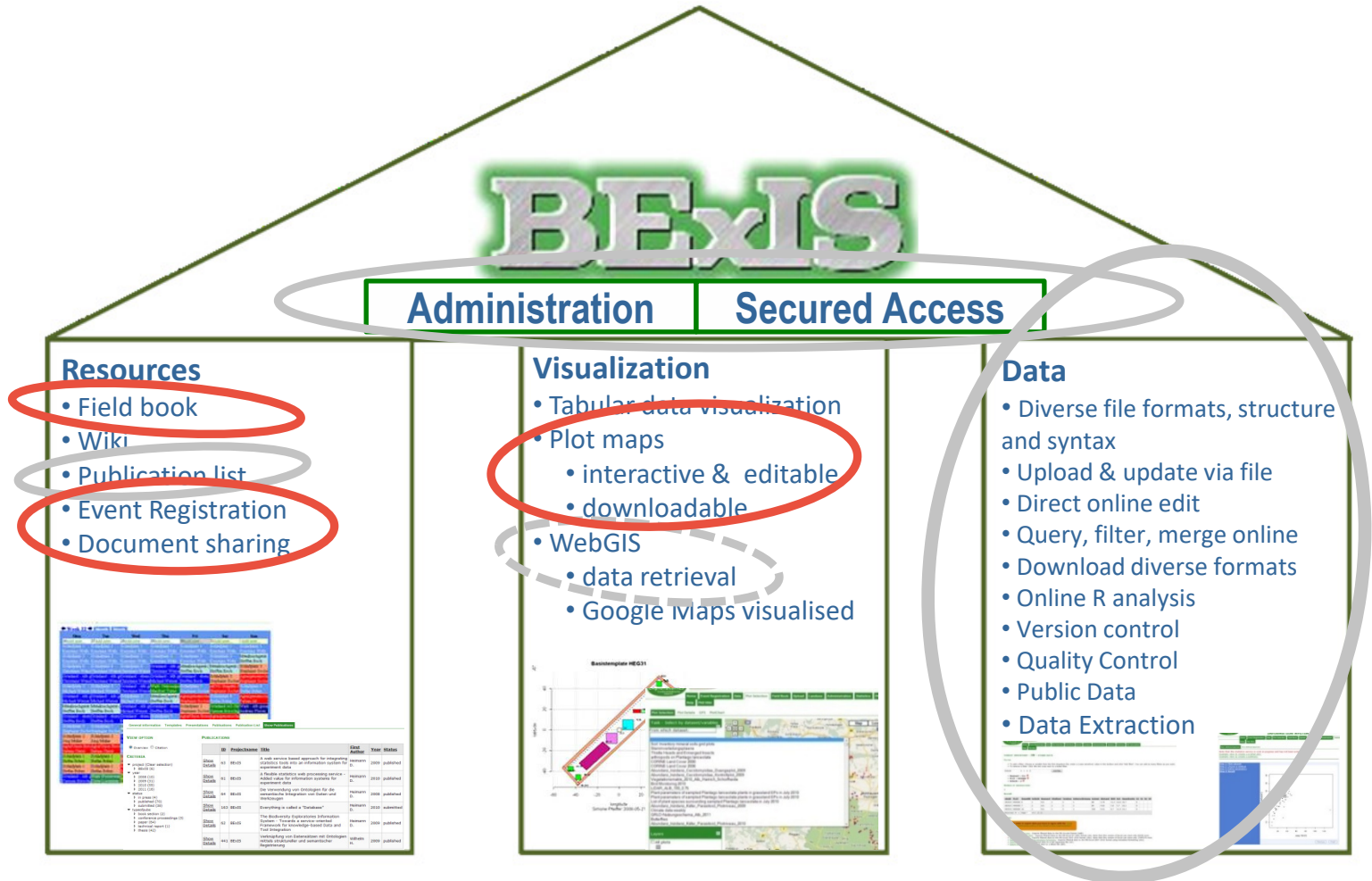
* Left recently, ** Parental leave, *** PhD, **** Parental leave replacement

Friedrich Schiller University, Jena



seit 1558

BEXIS2 develops (data oriented) core functionalities and covers  .
 We re-develop must-have functionalities  .



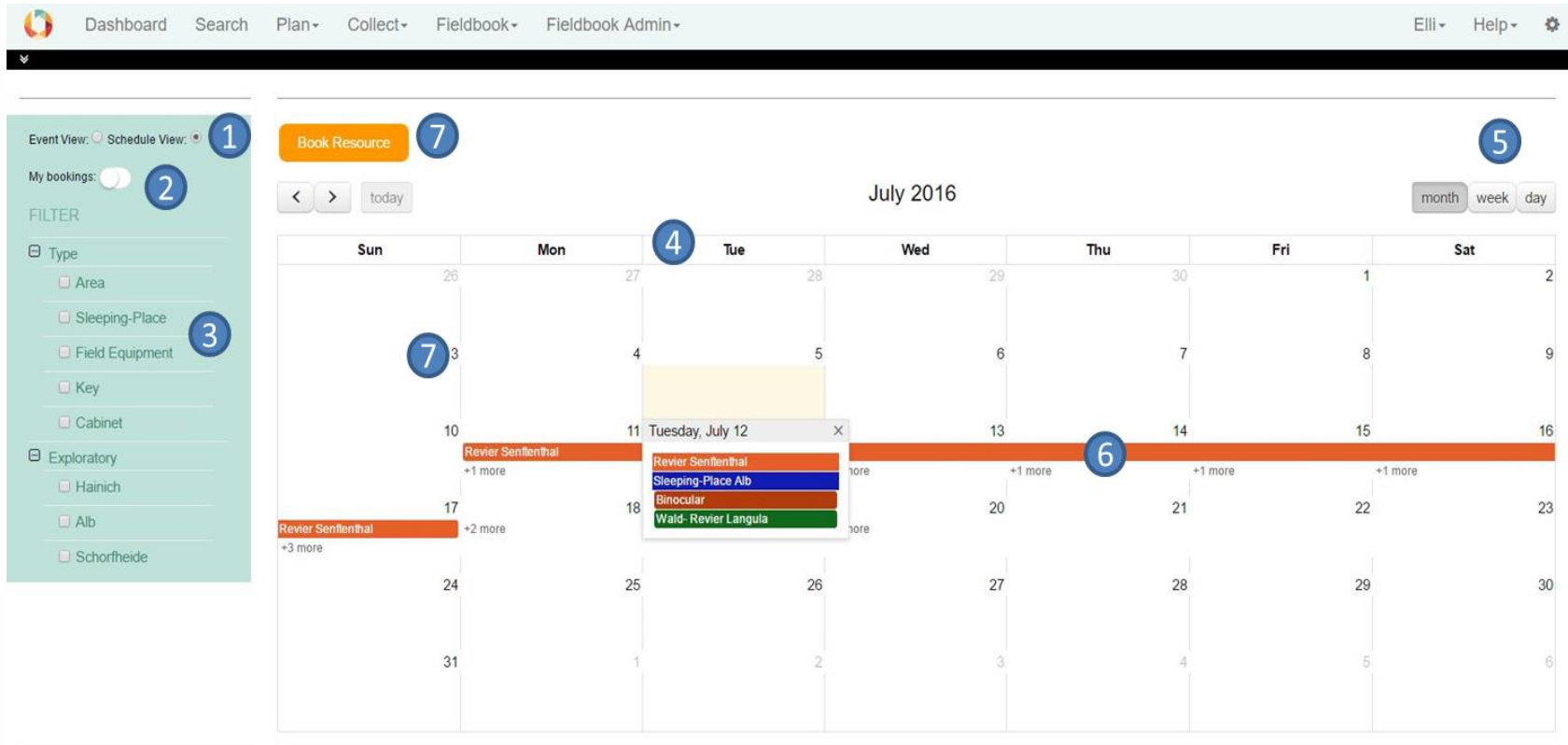
- **Field work related**
 - **Field book (Resource booking management)**
 - **Plot Map**
- **Event Management**
- **Document sharing**

Exploratories field book

- Reservation of resources needed for doing field work
- Resources are rooms and beds, vehicles, data collection tools, sample storage facilities, ...
- Resources can have dependencies and constraints

re-developed on a **generic** approach = flexibel and configurable

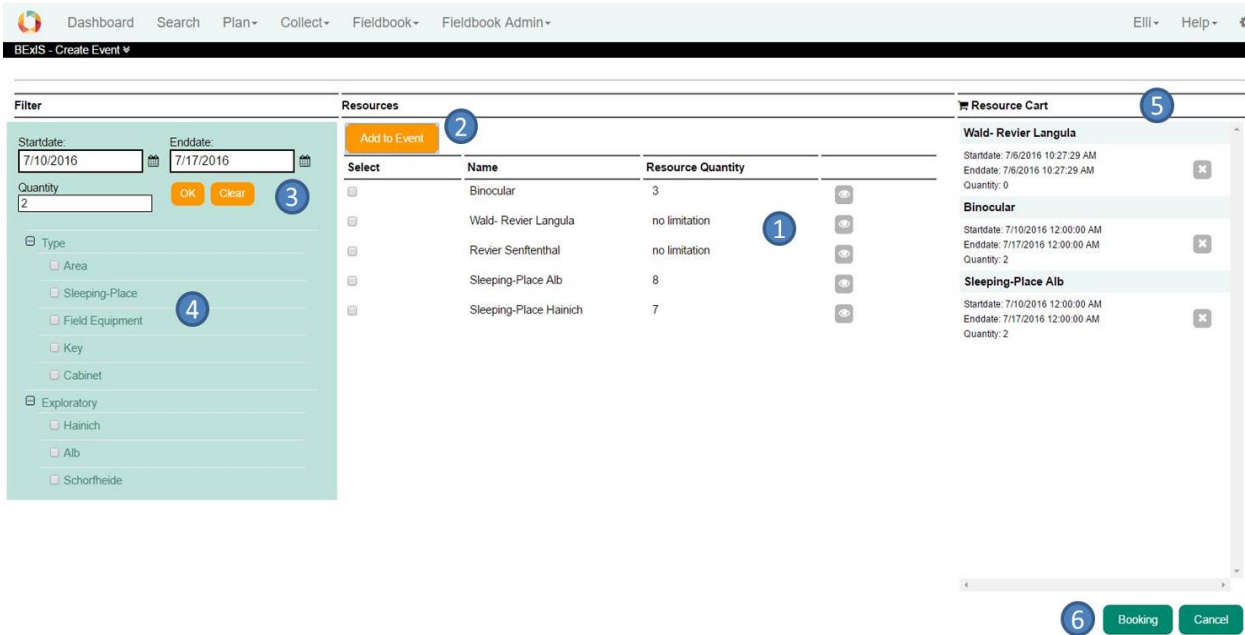
calender: user entry point



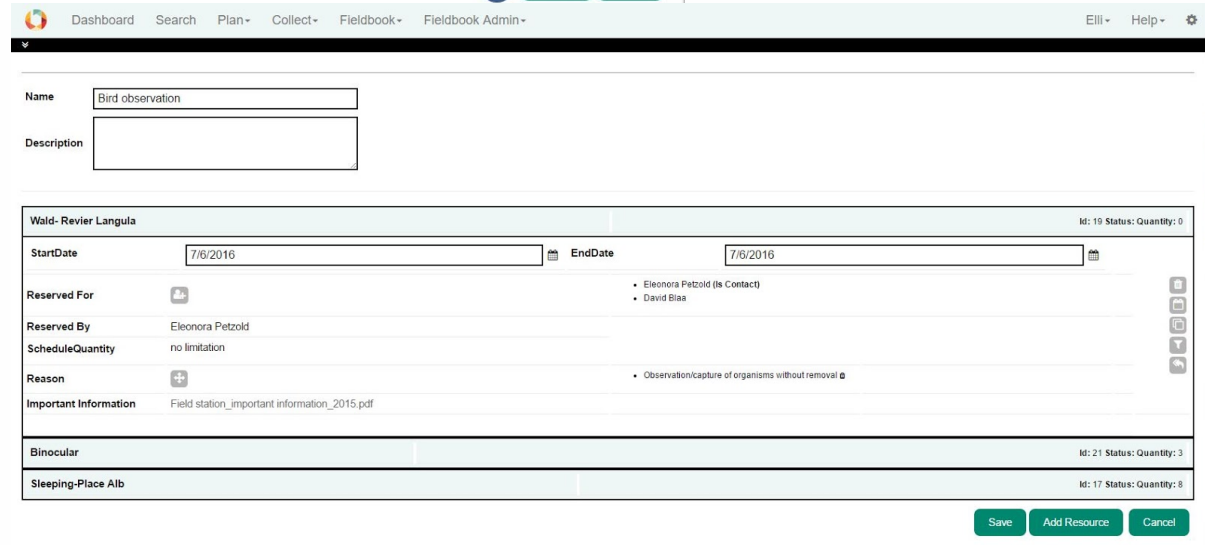
The screenshot shows the user interface of the Exploratories field book calendar. The interface is divided into several sections:

- Navigation and Search:** At the top, there is a navigation bar with links for Dashboard, Search, Plan, Collect, Fieldbook, and Fieldbook Admin. On the right, there are user options for Elli and Help, and a settings icon.
- Calendar View:** The main area displays a calendar for July 2016. The calendar is in a monthly view, showing days from Sunday to Saturday. A yellow highlight is present on Tuesday, July 12th. A pop-up window for Tuesday, July 12th is open, showing a list of resources: Revier Sententhal, Sleeping-Place Alb, Binocular, and Wald- Revier Langula. A blue circle with the number 6 is overlaid on the calendar grid.
- Filters and Bookings:** On the left side, there is a sidebar with a 'FILTER' section. It includes a 'Type' section with checkboxes for Area, Sleeping-Place, Field Equipment, Key, and Cabinet. Below that is an 'Exploratory' section with checkboxes for Hainich, Alb, and Schorfheide. A blue circle with the number 3 is overlaid on the 'Field Equipment' checkbox. Above the filter section, there is a 'My bookings' toggle switch and a blue circle with the number 2.
- Actions and Views:** At the top left of the calendar area, there is a 'Book Resource' button and a blue circle with the number 7. To the right of the calendar, there are navigation buttons for '<', '>', and 'today', and a blue circle with the number 5. At the bottom right of the calendar, there are buttons for 'month', 'week', and 'day'.

Book resource: 1st - select one or multiple resources for one booking event



2nd - define details of reservation for every schedule



Name	Start Date	End Date	Reserved For	Reserved By	Schedule Quantity	Reason	Important Information
Wald- Revier Langula	7/6/2016	7/6/2016	Eleonora Petzold (is Contact) David Blaas	Eleonora Petzold	no limitation	Observation/capture of organisms without removal	Field station_important information_2015.pdf
Binocular					3		
Sleeping-Place Alb					8		

re-developed on a **generic** approach = flexibel and configurable

Create your own resources...

Dashboard Search Plan- Collect- Fieldbook- Fieldbook Admin- Elli- Help- ⚙

BExIS - Create new Resource

Name: Resource Structure:

Description:

Quantity:

Color:

Duration:

Time Unit:

Exploratory:

Type:

Important Information:

Confirmation File:

Resource Constrains

...with their own dependency, blocking or quantity constraints

Dependency:

Dependency: Mode: Dependency on: Quantity: Implicit: Description:

Blocking: Mode: For people: Resource: Admin: Description:

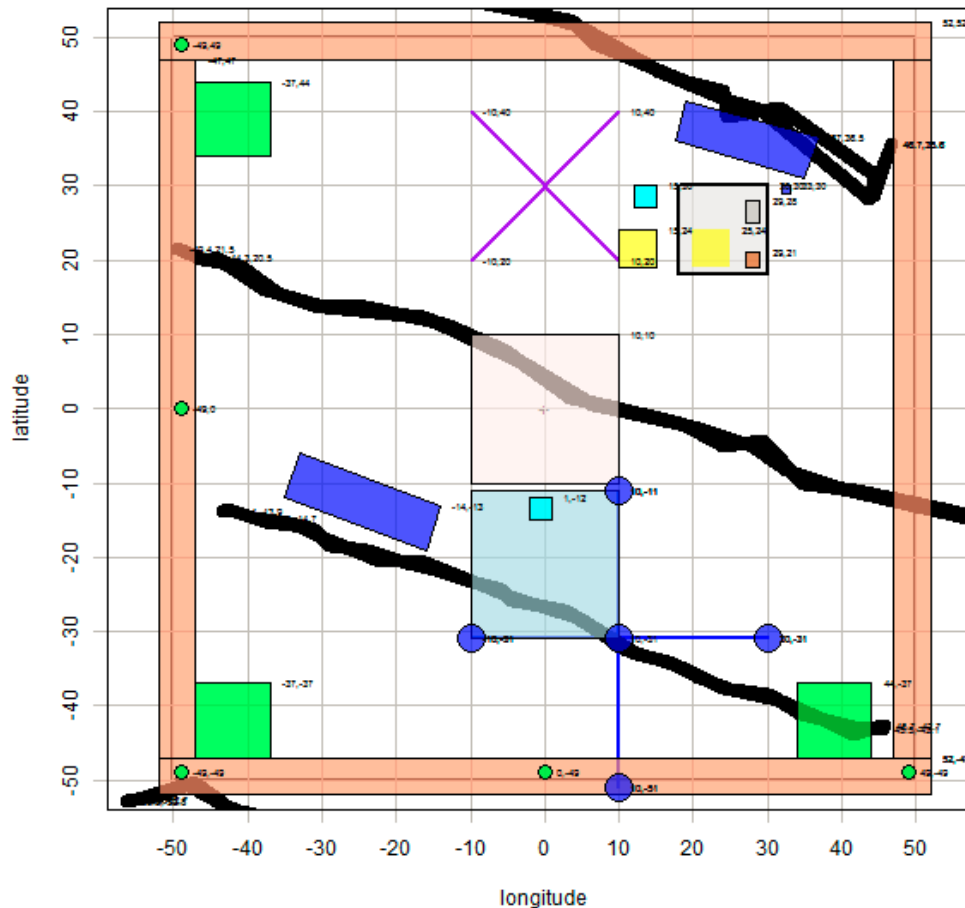
Quantity: Mode: For people: Resource: Admin: Description:

Exploratories plot map

- Map of every research field site (300 plots)
- Subplots of every field study is drawn
- History and current status available

NAME	GEOMETRY_TYPE	COORDINATES	COLOR	COORD_TYPE	REFERENCE_POINT	NOTES	Compute Plot
Arthropods I	rectangle	34,-47,44,-37	■	xy		since 2008: pitfall traps and flight-interception traps	<input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Select"/>
BECycles - throughfall samplers	linestring	(-10,10), (40,20)	■	xy		since 2009: sampling of throughfall with 20 rainfall	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

rectangle | | | | xy | |



re-developed more **generic** and **de-coupled** from external services

Create your own plots as rectangle, circle or polygon

Dashboard Search Plan Collect

Log In Help ⚙️

⏪ ⏩ 1 2 3 4 5 6 7 8 9 10 ... Select ⏪ ⏩
Displaying items 1 - 10 of 116

Plot Id	Geometry Type	Coordinate	Coordinate Type	Latitude	Longitude	Edit	Archive	Delete	Export	List
SEW50	rectangle	-50,-50,50,50	xy	53.03952843	13.78704314					
HEG1	rectangle	-25,-25,25,25	xy	50.97164834	10.40536291					
AEW4	rectangle	-50,-50,50,50	xy	48.39909865	9.244827343					
AEW36	rectangle	-50,-50,50,50	xy	48.38040166	9.22307025					
SEW1	rectangle	-50,-50,50,50	xy	52.90084729	13.84636695					
SEW2	rectangle	-50,-50,50,50	xy	52.95172886	13.77802812					
SEW3	rectangle	-50,-50,50,50	xy	52.92070744	13.6430016					
SEW31	rectangle	-50,-50,50,50	xy	52.88107754	13.9033697					
SEW4	rectangle	-50,-50,50,50	xy	52.91734663	13.84731137					
SEW5	rectangle	-50,-50,50,50	xy	53.05703356	13.88536623					

⏪ ⏩ 1 2 3 4 5 6 7 8 9 10 ... Select ⏪ ⏩
Displaying items 1 - 10 of 116

Name:

Coordinate:

Latitude:

Longitude:

Geometry Type:

Coordinate Type:

Geometry Type	Coordinates Type xy	Coordinates Type polar
rectangle	xStart,yStart,xEnd,yEnd	(alphaLowerLeft,distLowerLeft), (alphaUpperRight,distUpperRight)
example	-31,32.5,-28,35.5	(100,20.5),(100,30)
linestring	(x1, x2, ..., xN),(y1, y2, ..., yN)	(alpha1,dist1), (alpha2,dist2), ... (alphaN,distN)

Draw subplots on each plot or upload information as file

Plotchart: include former subplots draw beyond plot borders Grid Size:



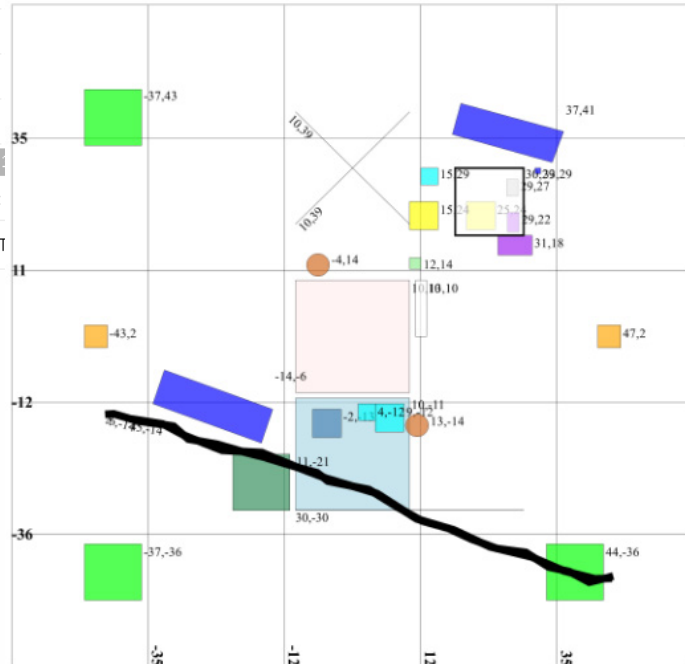
Displaying items 1 - 10 of 29

Name	Geometry Type	Coordinate	Coordinate Type	Line Width	Color	Description	Edit	Archive	Delete
HEW1	POLYGON	10,12,12,14	xy	1					
HEW1	POLYGON	-10,-31,10,-11	xy	1					
HEW1	POLYGON	-21,-31,-11,-21	xy	1					
HEW1	POLYGON	-47,-47,-37,-37	xy	1					
HEW1	POLYGON	-47,34,-37,44	xy	1					
HEW1	POLYGON	34,-47,44,-37	xy	1					
HEW1	POLYGON	-10,-10,10,10	xy	1					
HEW1	LINestring	(45.5,42.5,37.1,31.4,24.1,...	xy						
HEW1	LINestring	(45.7,44.7,41.5,38,34.4,30...	xy						
HEW1	POLYGON	10,19,15,24	xy						



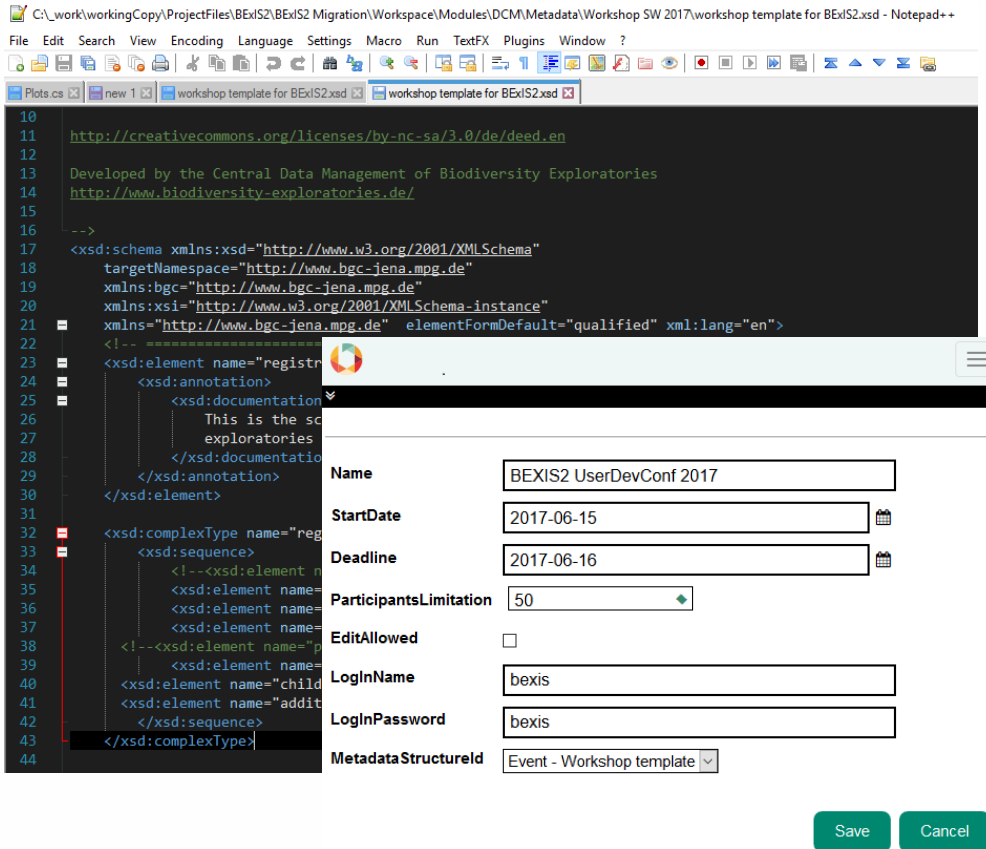
Displaying items 1 - 10 of 29

Name: Coordinate: Description:
 Geometry Type: Color: Coordinate Type:



Exploratories event management

- Easy configurable event management tool



The screenshot shows a Notepad++ window with an XML schema file. The code defines a schema for event management, including fields for Name, StartDate, Deadline, ParticipantsLimitation, EditAllowed, LoginName, and LoginPassword. A configuration form is overlaid on the code, with the following values:

Name	BEXIS2 UserDevConf 2017
StartDate	2017-06-15
Deadline	2017-06-16
ParticipantsLimitation	50
EditAllowed	<input type="checkbox"/>
LoginName	bexis
LoginPassword	bexis
MetadataStructureId	Event - Workshop template

Buttons for "Save" and "Cancel" are visible at the bottom of the form.

re-developed more **generic**

personal Data * ^

* Last Name

* First Name

* Email

travel * ^

* Arrival

* departure

meals * ^

* Vegetarian

lodging * ^

* Accommodation

* Room Type

* Neighbor

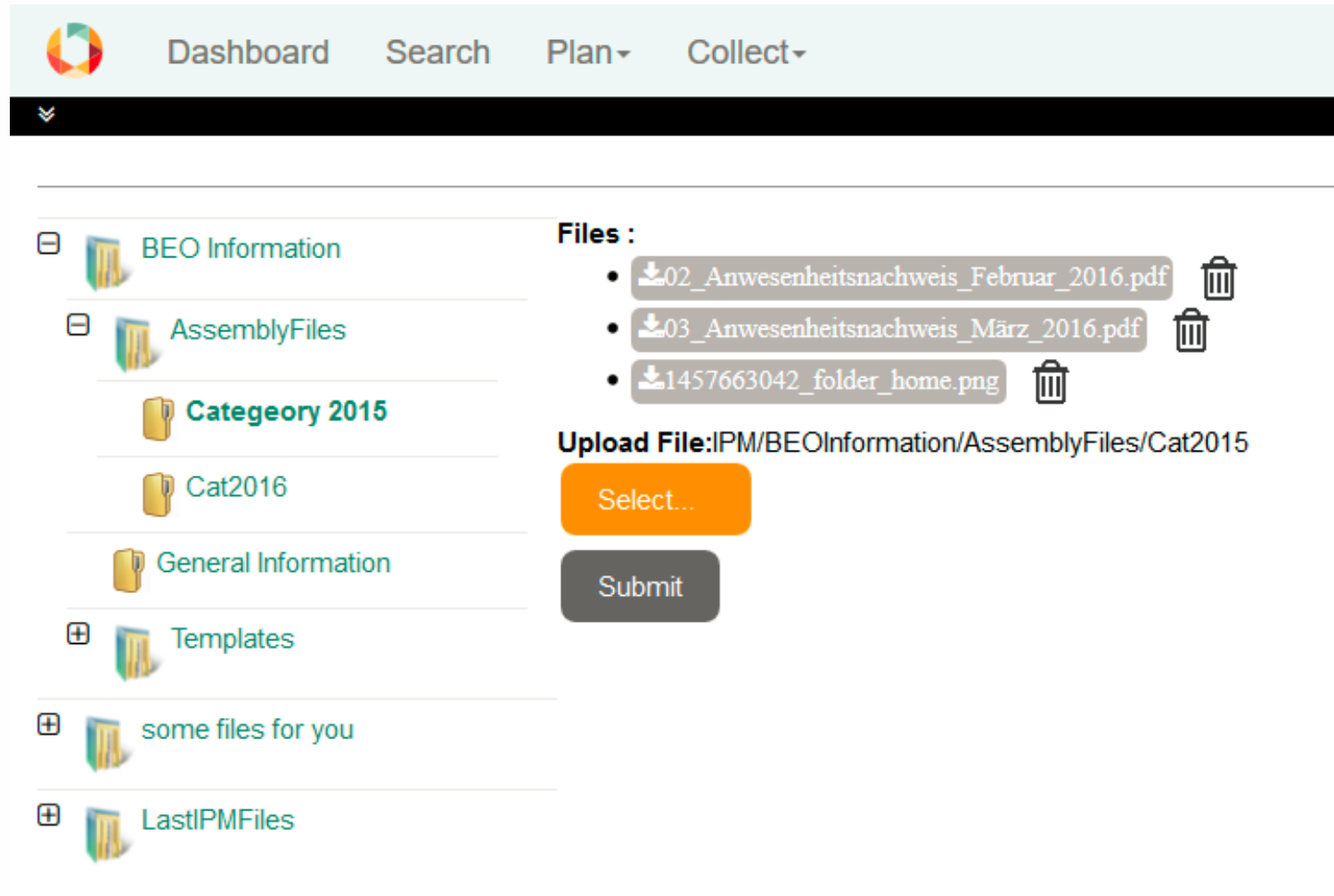
childcare * ^

* Need Childcare

additional Information * ^

Exploratories document sharing facility

- Easy usable file to page upload system



The screenshot shows the user interface of the Exploratories document sharing facility. At the top, there is a navigation bar with a logo on the left and menu items: Dashboard, Search, Plan (with a dropdown arrow), and Collect (with a dropdown arrow). Below the navigation bar is a dark grey bar with a downward arrow icon. The main content area is divided into two columns. The left column contains a list of folders, each with a folder icon and a minus sign icon to its left: BEO Information, AssemblyFiles, Category 2015, Cat2016, General Information, Templates, some files for you, and LastIPMFiles. The right column displays the 'Files' section for the selected folder path: IPM/BEOInformation/AssemblyFiles/Cat2015. It shows three files: 02_Anwesenheitsnachweis_Februar_2016.pdf, 03_Anwesenheitsnachweis_März_2016.pdf, and 1457663042_folder_home.png. Each file has a download icon and a trash icon. Below the file list, there is a text label 'Upload File:IPM/BEOInformation/AssemblyFiles/Cat2015' and two buttons: an orange 'Select...' button and a grey 'Submit' button.

- **Field book (Resource booking management)**
- **Plot Map**
- **Event Management**
- **Document sharing**

...to grade up a data management platform to an information system?