

# CONTENT MANAGEMENT SYSTEM FOR GAMIFIED EGUIDES MANUAL

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*Version 1.8*

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# 1 Introduction

## 1.1 Purpose

This document explains the basics of usage of the Content Management System for Gamified eGuides (CMS) developed within the BalticMuseums: Love IT! project. The CMS allows for editing the tour content and gamification rules so that the eguides can be adapted to various tourist attractions.

This document is to be used by the CMS users, both from within and from outside of the BalticMuseums: Love IT! project consortium.

## 1.2 Scope

This document describes the user interface and basic functionality provided by the CMS developed within the BalticMuseums: Love IT! project. Its goal is to guide users how to put their specific tour content and gamification ideas into the eguide so that it could be accessed by visitors to their tourist attraction.

This document does not describe how a tour should be composed to make it interesting to the visitors, how the content should be prepared to make it readable and well-received and how the gamification should be designed to increase visitors' engagement. These are covered by relevant literature.

## 1.3 Acknowledgements

The content of this document describes software developed by the team of University of Szczecin, lead programmer: Artur Kulpa, and Sidnet Solutions sp. z o.o..

## 1.4 Questions and Comments

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More information about the BalticMuseums: Love IT! project can be found at the following website:

<http://www.balticmuseums.info>

## 1.5 List of acronyms and abbreviations

**CMS** Content Management System

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## 2 The first steps

### 2.1 CMS Installation

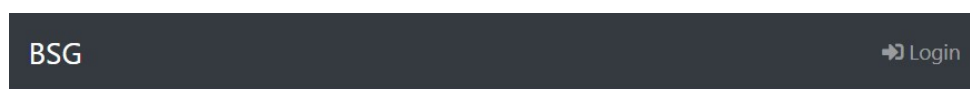
The CMS should be deployed individually for every tourist attraction as certain configuration elements have only single instance (e.g. name of attraction, its image and description). Therefore it is impossible to have different attractions handled by a single instance of the CMS.

The detailed installation procedure is provided in another document:

BM\_US\_053 Content Management System for Gamified eGuides – Installation Guide

### 2.2 Access to CMS

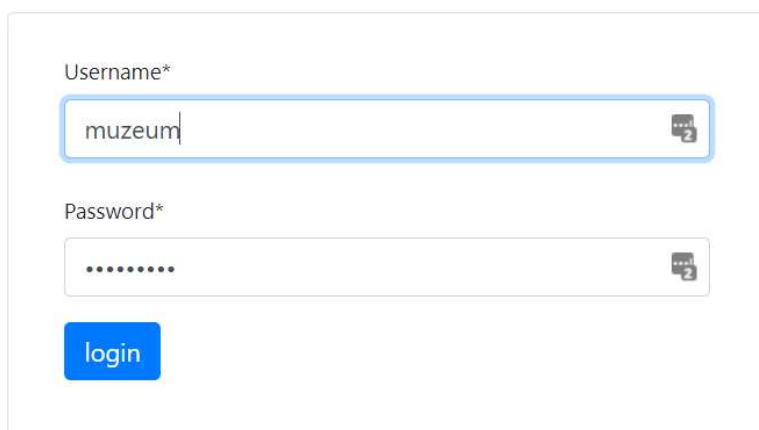
The first screen the CMS user sees is presented in Fig. 2.2.1.



**Fig. 2.2.1 Welcome screen.**

Note the Login button in the top right corner. In order to log into the CMS, it should be clicked on.

Fig. 2.2.2 presents the look of the CMS user login screen which is the screen sees after clicking on Login.



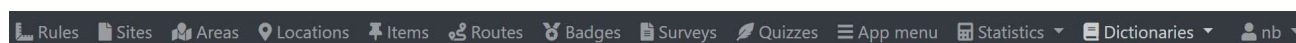
**Fig. 2.2.2 User login screen.**

The user login screen requires the user to input their username and password. The CMS can only be accessed by providing these credentials. Note that the CMS credentials have nothing to do with eguide user credentials. The credentials can be set by the CMS administrator. The credentials of the CMS administrator can be set during installation.

In order to log into the system, the blue login button below the Password box should be clicked on. Alternatively, the Enter key can be pressed from within the username or password box.

## 2.3 CMS Main menu

After logging in, the user is presented with the main menu (see Fig. 2.3.1). The description of the respective menu items is provided in Table 2.3.1.



**Fig. 2.3.1. Main menu.**

**Table 2.3.1. Main menu items.**

Menu item	Content to browse and edit
Rules	Gamification rules to be triggered in the result of user actions
Sites	Basic information about the tourist attraction
Areas	Distinct areas of the tourist attraction
Locations	Locations in the tourist attraction
Items	Content screens presented in eguide tours

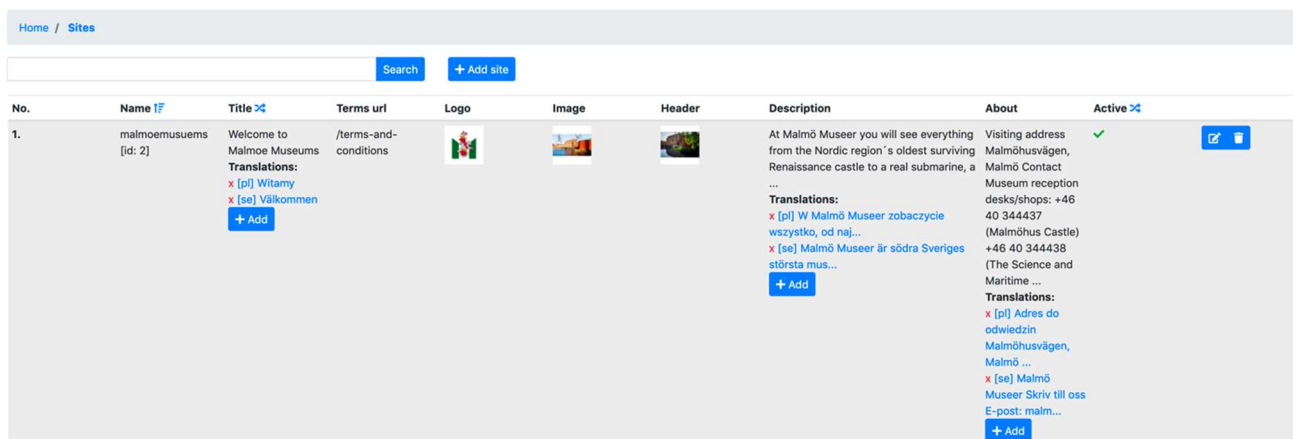
Menu item	Content to browse and edit
Routes	Routes that arrange the content screens to form an eguide tour
Badges	Badges that can be given to user as a rule result
Surveys	Surveys that can be answered by eguide user
Quizzes	Quizzes that can be answered by eguide user
App menu	Configurable menu within app
Statistics	Visitor activity registered in the app
Dictionaries	Type definitions for various kinds of elements
User menu	None / Access to Change password and log out

## 2.4 Site configuring

### 2.4.1 Sites screen

Site configuring should be the first thing to do after getting access to the CMS for the first time.

The site configuration screen with exemplary data is shown in Fig. 2.4.1.



**Fig. 2.4.1 Sites configuration screen.**

The text box in the top can be used to search for a site having name containing the specified text (use Search button to start the search).

The Add site button adds a new site to the list. Currently, there could be only one active site per CMS instance.

The main part of the screen is taken by a list of the defined sites. The meaning of its respective columns is explained in Table 2.4.1.

**Table 2.4.1. Site list columns.**

Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the site. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Title	The title to be displayed in eguide welcome screen
Terms URL	The URL of the usage terms (they are assumed to be presented on a separate web page, not part of the tour content) should contain a link to terms and conditions page in the format <a href="https://site-address.com">https://site-address.com</a> or /terms and conditions for internal URL (Fig. 2.4.2 shows an example of an internal URL)
Logo	The logo of the tourist attraction – to be displayed in various eguide screens/ The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 512x512 pixels.
Image	The image of the tourist attraction – to be displayed in eguide welcome screen. The allowed file formats are PNG and JPG.
Header	The header of the description text
Description	Short text about the tourist attraction – to be displayed in eguide welcome screen HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
About	Short text about the eguide tour – to be displayed in eguide about screen (could be used e.g. to list the copyright holders and authors of the tours and its specific contents etc.). HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.

The site list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 2.4.2.

**Table 2.4.2. Site list user interface components explanation.**

Displayed (example)	Meaning	Action
	Full text filter	Enter any text in the text box then press Search. Only sites having the entered phrase in Name, Title or Description will be listed. Clear the text box then press Search to list all the sites.
	Add new site	Add a new site to the list
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
	New element (a new translation in this case).	Add new translation.
	Marks the active site.	None
	Editor	Access Site edit form for detailed content of the list element for browsing and editing
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

## 2.4.2 Site data editing

The site data can be edited on Site edit form (Fig. 2.4.2). The meaning of its respective fields in their order of appearance is explained in Table 2.4.3.

**Table 2.4.3. Site edit form fields explanation.**

Column	Content
No.	Just an ordinal number, given automatically
Name	Short, internal name of the site (use only letters, digits and underscores)
Title	The title to be displayed in eguide welcome screen
Description	Short text about the tourist attraction – to be displayed in eguide welcome screen. HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
About	Short text about the eguide tour – to be displayed in eguide about screen (could be used e.g. to list the copyright holders and authors of the tours and its specific contents etc.) HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Terms URL	The URL of the usage terms (they are assumed to be presented on a separate web page, not part of the tour content).
Theme	There are two themes available: light and dark, mark chosen one.
Background color	Backgorund color of application, in form of HEX number of color i.e. #FFFFFF
Primary color	Color in form of HEX number i.e. #FFFFFF used for
Active	Activates the site
Logo	The logo of the tourist attraction – to be displayed in various eguide screens can be uploaded here. The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 512x512 pixels.
Image	The image of the tourist attraction – to be displayed in eguide welcome screen. The allowed file formats are PNG and JPG (only PNG supports transparency).

### Site edit ✕

Name\*

Title

Description

At Malmö Museer you will see everything from the Nordic region's oldest surviving Renaissance castle to a real submarine, a new aquarium and fantastic vehicles.

About

Visiting address  
Malmöhusvägen, Malmö

Contact

Terms url

Theme

 Save  Close

Fig. 2.4.2 Site edit form screen.



✕

## Site edit

Theme

dark

Background color

Primary color

Active

Logo

Currently: [site/malmo-logo\\_t3KOhia.jpg](#)  Clear

Change:  Nie wybrano pliku.

Image

Currently: [site/malmomuseer.jpg](#)  Clear

Change:  Nie wybrano pliku.

Header

Currently: [site/malmo-museer.jpg](#)  Clear

Change:  Nie wybrano pliku.

**Fig. 2.4.3 Site edit form save changes screen.**

After editing the site content, there are two options to close the form provided with blue buttons at the bottom:

- will store the edited data in the database (a confirmation will be displayed for a second, then the form is closed)
- will close the form without saving the edited content (it will be lost!).

## 2.4.3 Translation editing

There is always one base language of a route (the text you enter in fields such as Full name or Description). If your route is multilingual, you have to provide translations, in order to let visitors access the same content in other languages. If the translation field is left empty – the system will provide the text in the base language of a route from Full name or Description field. For this reason, for Multilanguage Routes it is advised that English should be the base language of a route so that the visitors would get English content when the content in their own language is not available.

The translation box looks the same regardless of what is translated. It contains just two fields: Language (to select the language of translation) and Text (the text translated to that language).

The screenshot shows a dark grey title bar with the text "Description translation add for site: welcome to malmoe museums" and a close button (X) on the right. Below the title bar, there is a "Language\*" label followed by a dropdown menu showing "-----" and a downward arrow. Underneath is a "Text" label followed by a large, empty text input area with a small icon in the bottom right corner. At the bottom right of the dialog, there are two blue buttons: "Save" with a floppy disk icon and "Close" with an X icon.

Fig. 2.4.4 Translation box screen.

## 2.5 Defining areas

### 2.5.1 Areas screen

Some tourist attractions consist of several distinct areas (e.g. locations, buildings, building floors or sections) for which distinct routes have to be prepared. Every area can have its own map and address.

**Note:** if your attraction consists of a single area, you still have to define this area as the routes are assigned to areas, not sites.

The area configuration screen with exemplary data is shown in

The text box in the top can be used to search for a site having name containing the specified text (use Search button to start the search).

The Add area button adds a new area to the list. You can have as many areas as you wish in one CMS instance.

The main part of the screen is taken by a list of the defined areas. The meaning of its respective columns is explained in Table 2.5.1.

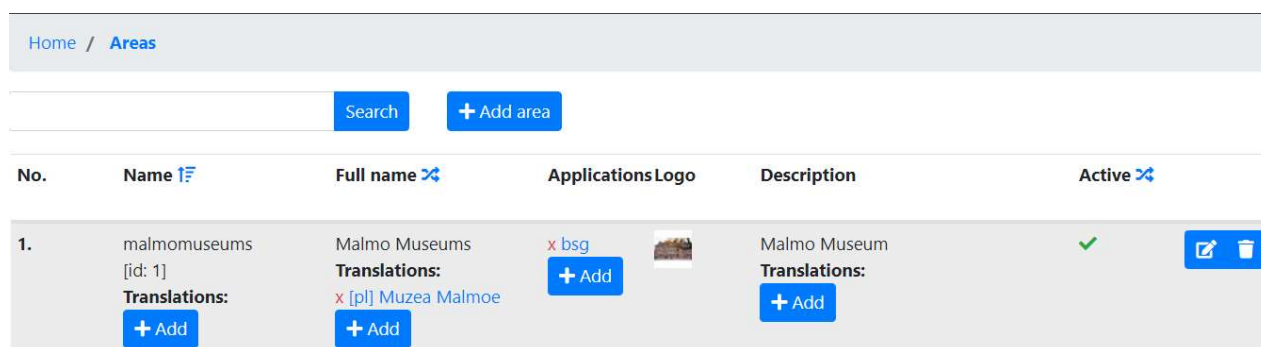







Fig. 2.5.1 List of Areas screen.


Table 2.5.1. Area list columns explanation.

Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the area. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the area (as presented to visitors)
Applications	Eguide applications that provide tours over this area
Logo	The image (could be a logo) identifying the area – to be displayed in eguide area selection screen ( <b>note:</b> there is no area selection screen in sites with only one area). The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 256x256 pixels.
Description	Short text about the area – to be displayed in eguide area selection screen HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Active	Marks whether an area is active (only active areas are visible in the eguide app: it can be used to keep an area inaccessible until its content is finished and could be presented to visitors)

The area list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 2.5.2.

**Table 2.5.2. Area list user interface components explanation.**

Displayed (example)	Meaning	Action
	Full text filter	Enter any text in the text box then press Search. Only areas having the entered phrase in Name, Full name or Description will be listed. Clear the text box then press Search to list all the areas.
	Add new area	Add a new area to the list
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
x bsg	Application name	Click red X to delete that application. Click application name to change it.
	New element (a new translation or application).	Add new translation or application.
	Marks the area is active.	None
	Editor	Access Area edit form for detailed content of the list element for browsing and editing

Displayed (example)	Meaning	Action
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

## 2.5.2 Area data editing

The area data can be edited on Area edit form (Fig. 2.5.2). The meaning of its respective fields in their order of appearance is explained in Table 2.5.3.

### Area edit ✕

Name\*

Full name

Description

Country

Adress

Type

Active

Logo  
Currently: [area/host.huvudbild.JR.jpg](#)   
Change:  Nie wybrano pliku

Fig. 2.5.2 Area edit form.

**Table 2.5.3. Area edit form columns explanation.**

Column	Content
Name	Short, internal name of the area (use only letters, digits and underscores)
Full name	Full name of the area (as presented to visitors)
Description	Short text about the area – to be displayed in eguide area selection screen HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Country	The country the area is located in
Address	The address of the area
Type	The type of the area. The set of available area types can be edited in Dictionaries screen, see section 4.1.
Active	Whether the area is active
Logo	The image (could be a logo) identifying the area – to be displayed in eguide area selection screen ( <b>note:</b> there is no area selection screen in sites with only one area). The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 256x256 pixels.  Use: Clear checkbox to remove the image, Select file button to change it

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## 3 Developing new eguide tour

### 3.1 Suggested workflow

The suggested workflow for developing a new eguide tour is as follows:

1. Ensure the relevant site (see section 2.4) and area (see section 2.5) data are provided.
2. Define the route (see section 3.2; note: locations cannot be connected at this stage).
3. Define the map item (see section 3.4.4).
4. Define the quizzes and surveys (see sections 3.5 and 3.6).
5. Define the locations (see section 3.3).
6. Place locations on a map (see section 3.2.3).
7. Define the tour items (see section 3.4).
8. Define the menu item (see section 3.4.5).
9. Define the gamification rules and rewards (see section 3.7).

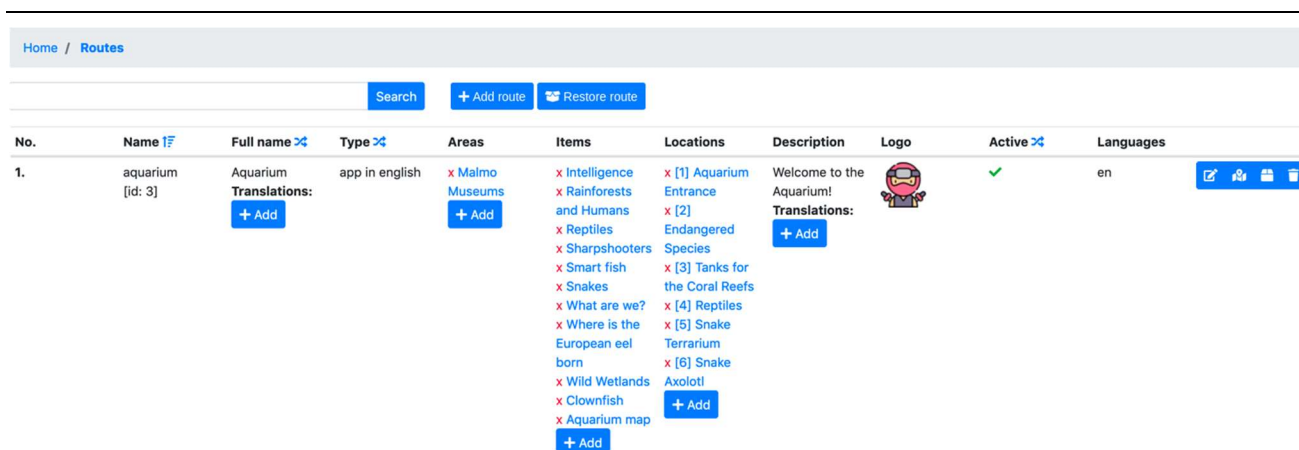
### 3.2 Defining routes

#### 3.2.1 Routes screen

The routes can be defined using Route list (Fig. 3.2.1). The meaning of its respective fields in their order of appearance is explained in Table 3.2.1.

Note that, in order to be available to visitors, a route has to be assigned to some area and set as active. Only the items listed in the Items field will be considered as belonging to a given route. Note: Full name is what a visitor can see, Name is just for internal use within the CMS.





**Fig. 3.2.1** Route list screen




**Table 3.2.1.** Route list columns.

Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the route. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the route (as presented to visitors)
Type	Route type. This is used to group routes on route selection screen.
Areas	The area the route belongs to.
Description	Short text about the route – to be displayed in eguide route selection screen HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Logo	Logo of the route – an icon. The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 256x256 pixels.
Active	Marks whether a route is active (only active routes are visible in the eguide app: it can be used to keep a route inaccessible until its content is finished and could be presented to visitors)
Languages	The languages of the content provided in the route. Note that this is for informative purposes for the visitor, the content still has to be provided in these languages.

The route list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.2.2.

**Table 3.2.2. Route list user interface components explanation.**

Displayed (example)	Meaning	Action
	Full text filter	Enter any text in the text box then press Search. Only routes having the entered phrase in Name, Full name or Description will be listed. Clear the text box then press Search to list all the routes.
	Add new route	Add a new route to the list
	Restore route	Choose previously generated Route backup file to fetch the information into the CMS - existing Route with the same name and all of it dependent data (locations, items, surveys, quizzes and resources) will be overwritten by data stored in the zip file.
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
x bsg	Area name	Click red X to unassign the route from that area. Click area name to change it.
	New element (a new translation or application).	Add new translation or area.
	Marks the route is active.	None
	Editor	Access Route edit form for detailed content of the list element for browsing and editing

Displayed (example)	Meaning	Action
	Map editor	Open Route map editing view.
	Route backup	Download Route backup file.
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.2.2 Route data editing

The route data can be edited in Route edit form (Fig. 3.2.2). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.2.3.

**Route edit** ✕

Name\*  Full name

Description 

Welcome to the Aquarium!

Type\*  Languages 

pl  
en  
se

Type\*  Map item  First item

Which item to display when starting the route. Item with the map shown when the user starts the route. Route item shown when the user starts the route.

Active

Logo

Save
Close

**Fig. 3.2.2 Route edit screen.**

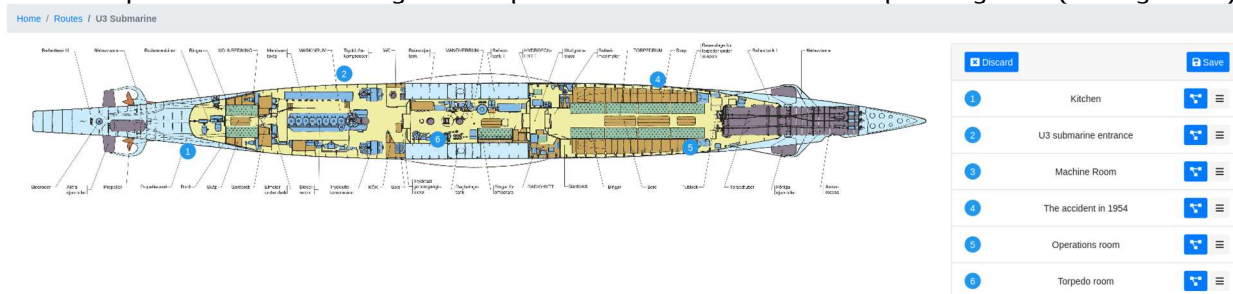
**Table 3.2.3. Route edit form fields.**

Field	Meaning
Name	Short name of the route. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the route (as presented to visitors)
Description	Short text about the route – to be displayed in eguide route selection screen

Field	Meaning
	HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Type	Route type. This is used to group routes on route selection screen.
Languages	The languages of the content provided in the route. Note that this is for informative purposes for the visitor, the content still has to be provided in these languages.
Active	Marks whether the route is active (only active routes are visible in the eguide app: it can be used to keep a route inaccessible until its content is finished and could be presented to visitors)
Logo	Logo of the route file – an icon. The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 256x256 pixels.

### 3.2.3 Route map editing view

Locations placement and ordering on a map can be done on the Route map editing view (see Fig. 3.2.3).



**Fig. 3.2.3. Location placement screen.**

Table 3.2.4 describes the UI elements provided in the Location placement screen.

**Table 3.2.4. The UI elements in the Location placement screen.**

Displayed (example)	Meaning	Action
	Discard changes	Cancel any changes made since last save
	Save changes	Save the current state of the map
	Location icon	Change Location position on the map. Hold left mouse button and drag it onto the map. Drag it off the map to remove the icon.
	Location graph	Open Item graph view.

Displayed (example)	Meaning	Action
	Sort	Change Location order. Hold left mouse button and drag it up/down.

## 3.3 Defining locations

### 3.3.1 Locations screen

The locations can be defined using Locations list (Fig. 3.3.1). The meaning of its respective fields in their order of appearance is explained in Table 3.3.1.

Note that, in order to be available to visitors, a location has to be assigned at least to one area and one route and set as active. Full name is what a visitor can see, Name is just for internal use within the CMS.

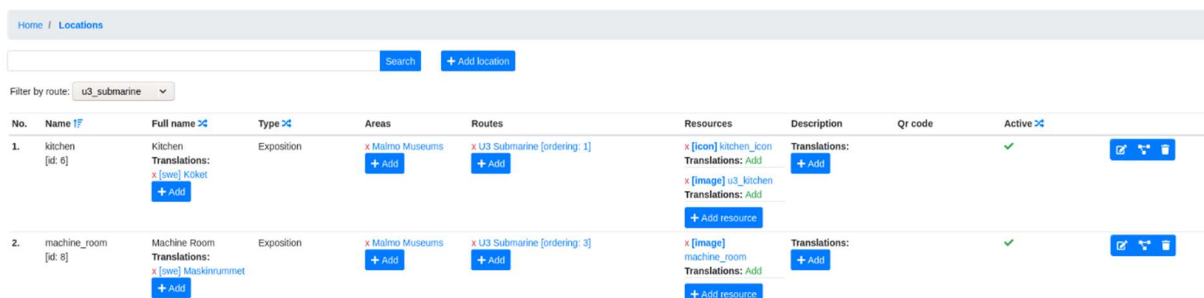


Fig. 3.3.1 Location list screen.


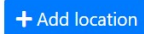

Table 3.3.1. Location list columns.





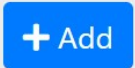


Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the location. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the location (as presented to visitors)

Column	Content
Type	Location type. This can be used to define gamification rules focused at specific location sets.
Areas	The area the location belongs to.
Routes	The routes the location belongs to.
Resources	Resources associated with the location:  Resource type image: the image shown on eguide location selection screen. The allowed file formats are PNG and JPG. The expected image size is 256x256 pixels.  Resource type icon: the small image shown on eguide map screen. The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 128x128 pixels.
Description	Short text about the location – to be displayed in eguide location selection screen  HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
QR code	QR code associated with the location. If scanned, leads to the default item in the location in the active route.
Active	Marks whether the location is active (only active locations are visible in the eguide app: it can be used to keep a location inaccessible until its content is finished and could be presented to visitors)



The location list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.3.2.

**Table 3.3.2. Location list user interface components explanation.**

Displayed (example)	Meaning	Action
	Full text filter	Enter any text in the text box then press Search. Only locations having the entered phrase in Name, Full name or Description will be listed. Clear the text box then press Search to list all the locations.
	Add new location	Add a new location to the list
	Browsed list segment	Click on a number to get to the specified list segment.  Click on triangles to move forward/backward between browsed list segments.
Filter by route: <input type="text" value="No filter"/>	Route filter	Select a route <b>then click Search</b> to list only the locations assigned to that route.

Displayed (example)	Meaning	Action
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
x Aquarium [ordering: 2]	Route name and the position of the location in that route	Click red X to unassign the location from that route . Click route name to change the route and/or position.
	Add new resource	Add a new resource to the location:  Resource type image: the image shown on eguide location selection screen. The allowed file formats are PNG and JPG. The expected image size is 256x256 pixels.  Resource type icon: the small image shown on eguide map screen. The allowed file formats are PNG and JPG (only PNG supports transparency). The expected image size is 128x128 pixels.
	Add new resource translation	Add a new translation of a content element to the location
	New element (a new description translation or area).	Add new translation or area.
	Marks the location is active.	None
	Editor	Access Location edit form for detailed content of the list element for browsing and editing



Displayed (example)	Meaning	Action
	Location graph	Open Location graph view. (See section 3.3.3)
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.3.2 Location data editing

The location data can be edited in Location edit form (Fig. 3.3.2). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.3.3.

**Location edit**

Name\*  Full name

Description

Type

Qr code

Latitude  Longitude

X  Y

Active

**Fig. 3.3.2 Location edit form.**

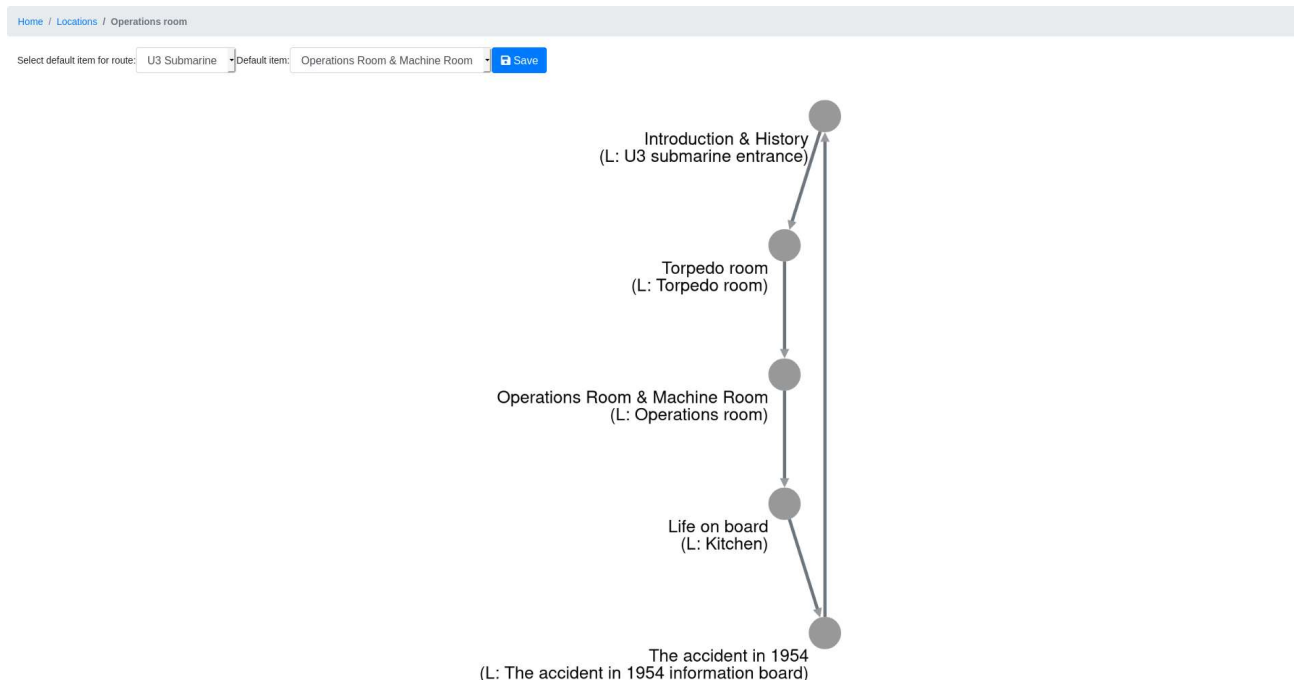
**Table 3.3.3. Location edit form fields.**

Field	Meaning
Name	Short name of the location. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the location (as presented to visitors)
Description	Short text about the location – to be displayed in eguide location selection screen

Field	Meaning
	HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Type	Location type. This is used to ...
QR code	QR code associated with the location. If scanned, leads to the default item in the location in the active route.
X	The horizontal position of the location's marker in the route map image (in pixels)
Y	The vertical position of the location's marker in the route map image (in pixels)
Latitude	Geographic latitude of the location (only for GPS-navigated apps)
Longitude	Geographic longitude of the location (only for GPS-navigated apps)
Active	Marks whether the location is active (only active locations are visible in the eguide app: it can be used to keep a location inaccessible until its content is finished and could be presented to visitors)

### 3.3.3 Location items graph

Location items graph (Fig. 3.3.3) visually depicts the connections between items. Note that it displays only screen and choice items.



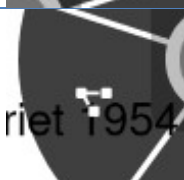

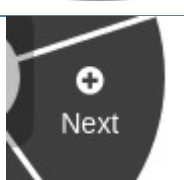


**Fig. 3.3.3. Location items graph.**

Table 3.3.4 explains the UI elements of the item graph.

**Table 3.3.4. Location items graph user interface components explanation.**

Displayed (example)	Meaning	Action
Select default item for route: U3 Submarine	Route selector	Display location graph for selected Route
Default item: Life on board	Default item	Choose which item should be the default one for this location. Only items assigned to this Location are shown.
	Save changes	Save chosen item as the default one.
Introduction & History	Item's full name	
(L: U3 submarine entrance)	Item's location name	
	Item node	Hold left mouse button over an item node to open its context menu.
	Visual representation of Items connections. Dark grey arrow represents "next_item" connection, light grey arrow represents "child_item" connection.	
	Context menu	While holding left mouse button move your mouse to choose an action.

Displayed (example)	Meaning	Action
	View item	Preview the item in the e-Guide app.
	Editor	Open Item edit form for browsing and editing detailed content of the list element.
	Graph	Open Item graph view.
	Add child item	Open new Item form with predefined ancestor Item.
	Add next item (only enabled on items with no next item defined)	Open new Item form with predefined previous item field.

## 3.4 Defining tour items

### 3.4.1 Items screen

The items can be defined using Item list (Fig. 3.4.1). Note: Full name is what a visitor can see, Name is just for internal use within the CMS. The meaning of its respective fields in their order of appearance is explained in Table 3.4.1.

Note that, in order to be available to visitors, an item has to be either defined as the default item for at least one location or assigned as the Next item for at least one other item, as well as set as active.

No.	Name ID	Full name	Type / Kind	Locations	Resources	Next item / Child items	Description	Tags	Qr code	Active
1.	crocodilesvideo [id: 40]	Crocodile Video YouTube Translations: + Add	Link / External link	x Creatous Time + Add	x [icon] video_icon Translations: Add + Add	Next item: [None] Child items: + Add	https://www.youtube.com/watch?v=wRKHXAUIMS... Translations: + Add	+ Add		✓
2.	naturbornholmcreatoustime [id: 41]	naturbornholm Creatous Time Start Item Translations: + Add	Panoramic view / Screen	x [D] Creatous Time + Add	x [image] Start Slide Translations: Add + Add	Next item: [None] Child items: + Add	x whydidplantsdevelopflowers x theplantshadnoflowers x thedinosaurswentextinct x thecrocodile x crocodilesvideo + Add	+ Add		✓

**Fig. 3.4.1** Items list screen.






**Table 3.4.1.** Item list columns.



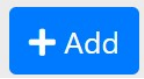





Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the item. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the item (as presented to visitors)
Type	Item type. This defines the type of content presented in the item. The predefined item types are listed in section 3.4.2.
Kind	Item kind. This defines how the item content will be displayed. The predefined item kinds are listed in section 3.4.2.
Locations	The Locations to which the item is assigned. <b>Note 1:</b> the first item to be displayed when the visitor enters a location is the one marked as default (shown as [D] in the list). <b>Note 2:</b> the items are also assigned to routes but this is done via the Routes screen (see tab. ).
Resources	Resources associated with the item. The predefined resource types are listed in Table 3.4.5.
Next item	The item to be shown right after this one in the route
Child items	The subitems of the item (usually items of kind pop-up that can be displayed from this item, then the visitor is returned to this item)
Description	Text content assigned to the item – to be displayed in eguide default item screen HTML formatting of the text is required, i.e. to break the line the   tag should be used, paragraphs should be wrapped in <p> text </p> tags etc.
Translations	Translations of resources (e.g. image, audio, video) or text description assigned to the item.
Tags	Tags identifying the item. Used for item searching.
QR code	QR code associated with the item. If scanned, leads to the item.

Column	Content
Active	Marks whether the item is active (only active items are visible in the eguide app: it can be used to keep an item inaccessible until its content is finished and could be presented to visitors)

The item list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.4.2.

**Table 3.4.2. Item list user interface components explanation.**

Displayed (example)	Meaning	Action
	Full text filter	Enter any text in the text box then press Search. Only items having the entered phrase in Name, Full name or Description will be listed. Clear the text box then press Search to list all the items.
	Add new item	Add a new item
	Browsed list segment	Click on a number to get to the specified list segment.  Click on triangles to move forward/backward between browsed list segments.
Filter by route: <input type="text" value="No filter"/>	Route filter	Select a route <b>then click Search</b> to list only the items assigned to that route.
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.

Displayed (example)	Meaning	Action
 [D] Aquarium Entrance	Location name and information whether the item is default for that location ([D] is for default)	Click red X to unassign the item from that location . Click location name to change the location and/or default status.
<b>Next item:</b> [The Circle of Life] <b>Child items:</b>	The next and child items of the item	None. Editing the next and child items is done via the item data edit form (see section 3.5.2).
	Add new resource translation	Add a new translation of a content element to the item
	New element (a new location, resource, child item, description translation or tag).	Add a new element
	Marks the item is active.	None
	Editor	Access Item edit form for detailed content of the list element for browsing and editing
	Item graph	Open Item graph view (see section 3.4.11).
	Panoramic item data	Open panoramic item data editing view. (shown only for Panoramic / Screen items only)
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.4.2 Item types and kinds

Item type defines the type of content presented in the item. The predefined item types are listed in Table 3.4.3.

**Table 3.4.3. Predefined item types.**

Item type	Description
Avatar	Presentation of an avatar or a virtual guide (image, description)



Item type	Description
Avatar choice	Presentation of avatar/virtual guides available to choose
Branch	Presentation of a chosen path (image, description)
Branch choice	Presentation of paths available to choose (crossroads)
Card	Presentation of a virtual item that can be obtained by a visitor (e.g. a card) (image, description)
Default	The default item type. Usually consists of text description, image, audio recording and video.
Game	Embedded mini-game that the visitor can win or lose (unsupported in the current app version).
Link	Moving to the specified in-app web address (see section 3.4.12).
Map of route	An image showing a map of the area. <b>Note 1:</b> the map is assigned to route not area so every route in an area can have its own map. <b>Note 2:</b> the route locations are automatically marked on it (and can be clicked by the user/visitor), however the route map image may contain other locations drawn on it (they will not be clickable by visitors).
Quiz	A quiz question (see section 3.4.12).
Panoramic view	An image showing a specific location. <b>Note 1:</b> the user may scroll and zoom the image. <b>Note 2:</b> the item's child items are automatically marked on it (and can be clicked by the user/visitor to open pop-ups or navigate to other items).

Item kind defines how the item content will be displayed. The predefined item kinds are listed in Table 3.4.4.

**Table 3.4.4. Predefined item kinds.**

Item type	Description
Screen	The screen item is a default element of a route and will be displayed on a whole screen. The Screen items are chained using Next item fields. The first item in a location is the one marked as default in item list ("[D]"). The order of locations is defined in location list ("ordering").
Popup	The popup item is a sub-element of a route and will be displayed in a block, when closed the user returns to the main (screen) item. The Popup items are attached using Child items fields. The access to popup items is through hyperlinks in text description of default items or links in markers in panoramic view items.

### 3.4.3 Resources attached to items

There are several predefined types of resources in the CMS that can be attached to items. Table 3.4.5 lists them.

**Table 3.4.5. Predefined resource types.**

Resource type	Usage
Image	A large image. The allowed file formats are PNG and JPG. There are no bounds on image size, however, in order to avoid deformations, use images with a width to height ratio of 16:9, and for good perceived quality, use images which are at least 1920 pixels wide and 720 pixels high.
Icon	A small image to be shown on panoramic image screen. The allowed file formats are PNG and JPG. Only PNG format supports transparency. The expected image size is 128x128 pixels.  Resource type image: the image shown on eguide location selection screen. The allowed file formats are PNG and JPG. The expected image size is 256x256 pixels.
Audio	An audio recording. The allowed file formats are MP3, WAV and OGG.
Video	A video recording. The allowed file formats are MP4, WebM and OGG.
Text	Additional text. Unhandled by predefined item types.

The resources are edited in the Item resource edit form (Fig. 3.4.2) accessible from Item list (Fig. 3.4.1).

**Item resource edit for item: boleek**
✕

Name\*

Type

File\*

Currently: [item/bolek.jpg](#)

Change:  Nie wybrano pliku

**Fig. 3.4.2 Item resource edit form.**

The respective fields of the Item resource edit form are explained in Table 3.4.7.

**Table 3.4.6. Item resource edit form fields.**

Displayed (example)	Meaning	Action
Name* <input type="text" value="Bolek AVATAR"/>	Resource name	Enter any text in the text box to change the resource name.
Type <input type="text" value="image"/>	Resource type	Click on the select box to change the resource type (see Table 3.4.5). It may affect the way it is displayed in specific item types (see section 3.4.2).  For resources which are not going to be used in the predefined way (e.g. as the main image of an item), it is safer to set their type as unspecified ("-----").
File* Currently: <a href="#">item/bolek.jpg</a>	Resource file	Click on the file name to open the resource file (use go back to return to the CMS).  Hover on the file name to see the URL of the resource (which can be needed to embed the resource in text content). In most browsers, use their context menu to copy the link to clipboard.
Change: <input type="button" value="Wybierz plik"/>	Change resource file	Click on the Select file button (the text on the label depends on your system language settings) to select another file to upload.
<input type="button" value="Save"/>	Save changes	Click to store the edited data in the database (a confirmation will be displayed for a second, then the form is closed). Warning! The change is irreversible!
<input type="button" value="Close"/>	Abandon changes	Click to close the form without saving the modified resource (it will be lost!).

### 3.4.4 Default item data editing

The item data can be edited in Item edit form (Fig. 3.4.3). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.4.7.

**Item edit** ✕

Name\*  Full name

name

Description

Type  Kind

Next item

Latitude  Longitude

X  Y

Active

**Fig. 3.4.3 Item edit form.**

**Table 3.4.7. Item edit form fields.**

Field	Meaning
Name	Short name of the item. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the item (as presented to visitors)
Description	Text content assigned to the item – to be displayed in eguide default item screen

Field	Meaning
	<p>HTML formatting of the text is required, i.e. to break the line the &lt;br&gt; tag should be used, paragraphs should be wrapped in &lt;p&gt; text &lt;/p&gt; tags etc.</p> <p>Use &lt;img&gt; and &lt;video&gt; tags to embed additional images or videos within the text content. It is possible to embed resources stored in the CMS (see Table 3.4.6 for information of how to determine their URLs).</p> <p>Use &lt;a&gt; and &lt;img&gt; tags to embed links within the text content (see sections 3.7.2 and 3.7.3 for more details).</p>
Type	Item type. This defines the type of content presented in the item. The predefined item types are listed in section 3.4.2.
Kind	Item kind. This defines how the item content will be displayed. The predefined item kinds are listed in section 3.4.2.
Next item	The item to be shown right after this one in the route
X	The horizontal position of the item's marker in the panoramic view image (in pixels) (only for panoramic view child items)
Y	The vertical position of the item's marker in the route map image (in pixels) (only for panoramic view child items)
Latitude	Geographic latitude of the item (only for GPS-navigated apps and items not assigned to locations)
Longitude	Geographic longitude of the item (only for GPS-navigated apps and items not assigned to locations)
Active	Marks whether the item is active (only active items are visible in the eguide app: it can be used to keep an item inaccessible until its content is finished and could be presented to visitors)

### 3.4.5 Map item data setting

In order to add a map to a route, create an item and set its type to Map of route and kind to screen. Then assign the map item to the route.

It will have the same fields as any other item.

However:

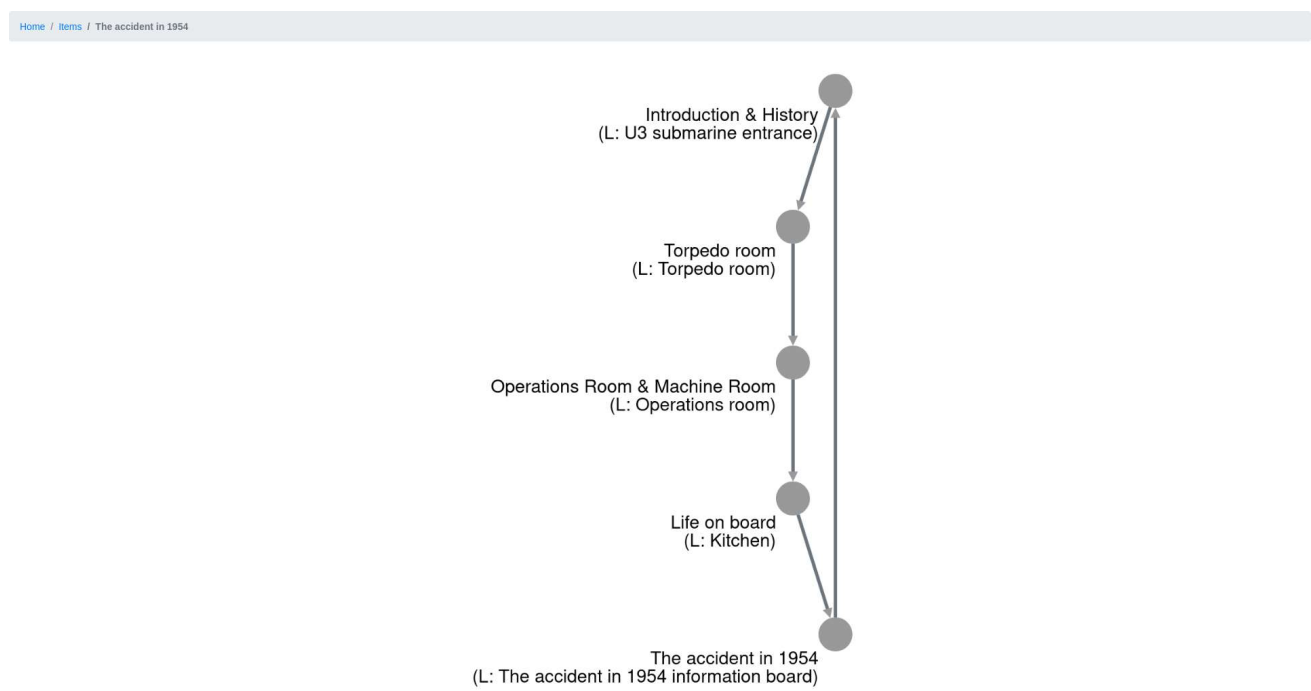
- It should have a resource attached of type Image, which should contain an image with a map of the route. The allowed file formats are PNG and JPG.
- It does not have to have child items. However, when user views a map, every Location assigned to the route will be displayed on the map provided the location has fields X and Y filled with, respectively, horizontal and vertical position (in pixels, counted from top-left of the map image) of the marker. If there is a resource of type Icon among location's resources, it will be used as the marker, otherwise, a consecutive number

will be used to generate the marker (the order is defined based on the locations' order in the route - see section 3.3.1).

By clicking at a marker in the map view, the user will navigate to the respective location's default item (see section 3.4.1).

### 3.4.6 Item graph


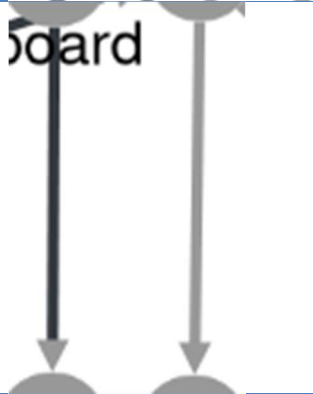

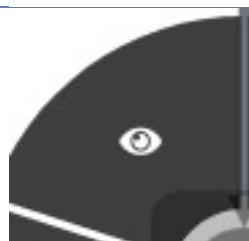
Item graph (Fig. 3.4.4 Item graph.Fig. 3.4.4) visually depicts the connections between items. It's different from Location items graph (see section 3.3.3) because it displays items of all types and kinds.



**Fig. 3.4.4 Item graph.**

Table 3.4.8 explains the UI elements of the item graph.

**Table 3.4.8. Item graph user interface components explanation.**

Displayed (example)	Meaning	Action
Introduction & History	Item's full name	
(L: U3 submarine entrance)	Item's location name	
	Item node	Hold left mouse button over an item node to open its context menu.
	Visual representation of Items connections. Dark grey arrow represents "next_item" connection, light grey arrow represents "child_item" connection.	
	Context menu	While holding left mouse button move your mouse to choose an action.
	View item	Preview the item in the e-Guide app.

Displayed (example)	Meaning	Action
	Editor	Open Item edit form for browsing and editing detailed content of the list element.
	Graph	Open Item graph view.
	Add child item	Open new Item form with predefined ancestor Item.
	Add next item (only enabled on items with predefined previous item field. no next item defined)	Open new Item form with predefined previous item field.

### 3.4.7 Panoramic view item data setting

In order to add a panoramic view item to a route, create an item and set its type to Panoramic view and kind to screen. Then assign the panoramic view item to the route.

The panoramic view consists of a large image that can be scrolled and zoomed and markers put on it, which can be clicked at to view associated content.


The large image can be set by adding a resource of type Image to the panoramic view item.

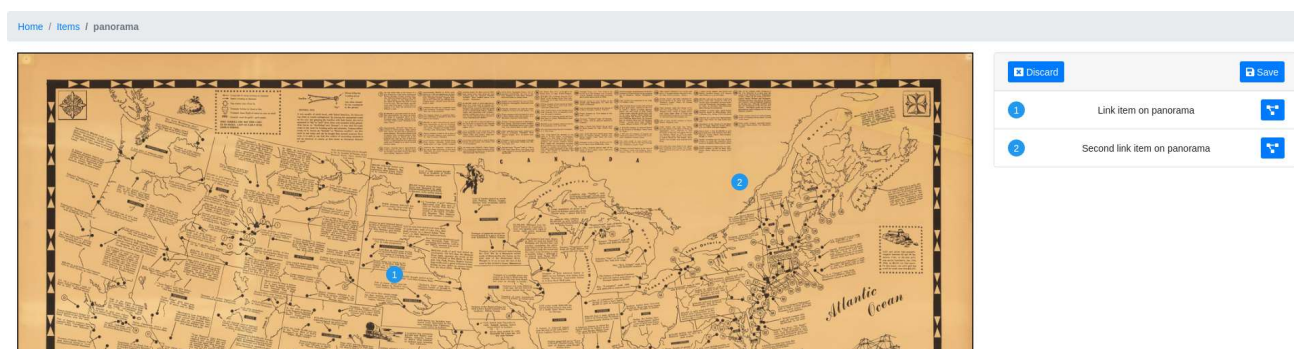
To add an active element with associated content to the panoramic view:

- define a new item, set its type depending on the type of content (usually Default),



- set the new item's kind to Popup if it is to display associated content or Screen if it is to navigate to another item,
- add a marker image as the new item's resource and set the resource type to Icon,
- add the new item to the panoramic view item's child items.
- child\_items can only be built by items of Default / Popup or Link / None type.





After adding all elements use data placement screen (Fig. 3.4.5) to assign X and Y position to each element on the image. This screen can be accessed through  button on Items list view (it's shown only for items of the panoramic view type).



**Fig. 3.4.5. Panoramic view item data placement screen.**

Table 3.4.9. The UI elements in the Panoramic placement screen. describes the UI elements provided in the placement screen.

**Table 3.4.9. The UI elements in the Panoramic placement screen.**

Displayed (example)	Meaning	Action
 Discard	Discard changes	Cancel any changes made since last save
 Save	Save changes	Save the current state of the panoramic view
 1	Item icon	Change marker icon position on the map. Hold left mouse button and drag it onto the map. Drag it off the map to remove the icon.
	Item graph	Open Item graph view.

---

### 3.4.8 Branch choice setting

In order to add a branching to a route:

- define an item presenting every branch, set its type to Branch, provide content (full name, description, resource of type image) explaining what is the branch about, set its Next item field to the first item in the branch;
- define an item informing about the choice to be made, set its type to Branch choice,
- assign the Branch items to be the child items of the Branch choice item.

### 3.4.9 Avatar and avatar choice item data setting

The item type Avatar can be used for both avatars (graphic representation of the user) and virtual guides (graphic representation of the guide).

In order to add an avatar/virtual guide to a route:

- for every avatar, define an item presenting it, set its type to Avatar, provide content explaining the avatar's history (full name, description, resource of type image - used on the Avatar choice screen – see Fig. 3.4.6, resource of type icon - small round image visible all the time after selecting an avatar – see Fig. 3.4.7), set its Next item field to the first item in the avatar's line of narrative;
- define an item informing about the choice to be made, set its type to Avatar choice,
- assign the Avatar items to be the child items of the Avatar choice item.

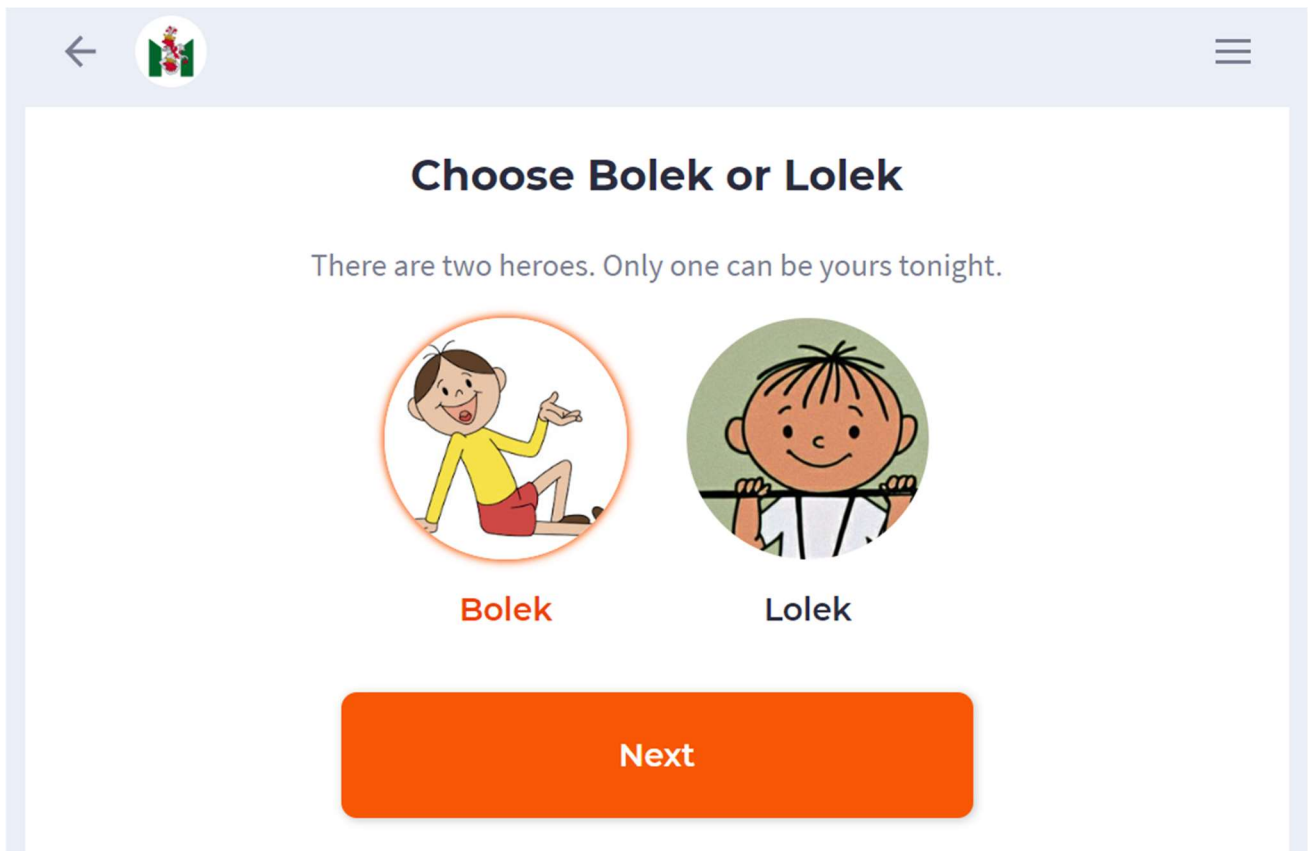


Fig. 3.4.6 Exemplary avatar selection screen



Fig. 3.4.7 Example of the app top bar after setting an avatar

If you want the chosen avatar to be visible in the app top bar (see e.g. Fig. 3.4.7), you need to define a specific gamification rule (see section 3.8) for every avatar:

- get to the rule editor (see section 3.8.2),
- add a new rule (edit its name and description according to what it does),
- as its result, select the respective Avatar-type item,
- as its conditions:
  - add 'action type' condition, select 'in' operator' and 'set avatar' as action type;
  - add 'item' condition, select 'in' operator and the same Avatar-type item as in the result.

---

Note that the main difference between the Branch choice and Avatar choice item types is that the Avatar choice triggers the 'set avatar' event. Note also that all the avatar items' can lead to the same next item (i.e. the choice of avatar/virtual guide does not have to result in branching of the route; the effects may be more subtle, i.e. adhere only to gamification rules).

### 3.4.10 Quiz items

The items of type quiz are merely placeholders to mark the place of the route at which the quiz is to be administered. For such items, only name, full name, area, active and next item fields should be set. The next item should be the item to be displayed after the quiz. The quiz is linked to the respective item via its edit form (see section 3.5).

### 3.4.11 Survey items

The items of type survey are merely placeholders to mark the place of the route at which the survey is to be administered. For such items, only name, full name, area, active and next item fields should be set. The next item should be the item to be displayed after the survey. The survey is linked to the respective item via its edit form (see section 3.6).

### 3.4.12 Link items

The link items do not represent any actual content, they just automatically move the user to the web page under the specified URL. Only: Name, Full name and Description fields should be edited. The Description should contain the target URL. The intended use of link items is to allow enriching routes with application screens which are not formally items: see section 3.7.2 for the list of URLs that could be used for this purpose.

## 3.5 Defining quizzes

### 3.5.1 Quizzes screen

The quizzes allow to present the users with questions, allow them to answer them and evaluate the answers. The quizzes can be defined using Quiz list (Fig. 3.5.1). Note: Full name is what a visitor can see, Name is just

for internal use within the CMS. The meaning of its respective fields in their order of appearance is explained in Table 3.5.1.

Note that, in order to be available to visitors, the quiz has to be assigned to at least one either location or item, as well as set as active.

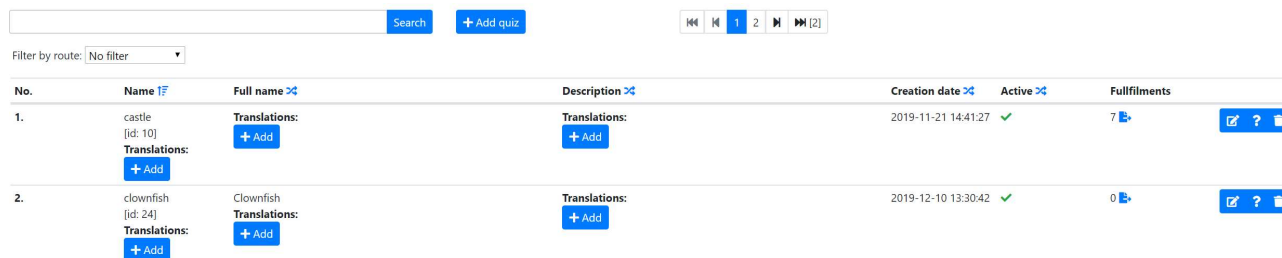


Fig. 3.5.1 Quiz list screen.




Table 3.5.1. Quiz list columns.

Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the quiz. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the quiz (as presented to visitors)
Description	Text content assigned to the quiz – to be displayed before the first question
Translations	Translations of quiz description
Creation date	The time of creating the quiz.
Fullfilments	Number of quiz answers received so far.
Active	Marks whether the quiz is active. Note 1: new questions can only be added to <b>inactive</b> quizzes. Note 2: only the active quizzes are visible in the eguide app: it can be used to keep a quiz inaccessible until its content is finished and could be presented to visitors.

The quiz list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.5.2.

**Table 3.5.2. Quiz list user interface components explanation.**

Displayed (example)	Meaning	Action
	Full text filter	Enter any text in the text box then press Search. Only quizzes having the entered phrase in Name, Full name or Description will be listed. Clear the text box then press Search to list all the quizzes.
	Add new quiz	Add a new quiz
	Browsed list segment	Click on a number to get to the specified list segment.  Click on triangles to move forward/backward between browsed list segments.
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
	Number of registered responses (e.g. 22). Note: you can only edit questions which have no registered responses (i.e. 0)	Click red X to delete the responses registered so far It is irreversible, so use the download function (see below) to store them at your computer before deleting them from the server
	List of quiz answers received so far	Download the list of quiz answers so far as an Excel spreadsheet
	New element (e.g. a new translation).	Add a new element

Displayed (example)	Meaning	Action
	Quiz editor	Access Quiz edit form for detailed content of the list element for browsing and editing
	Question editor	Access Question edit form for browsing and editing the list of questions assigned to the quiz. <b>Note:</b> it is only accessible for <b>inactive</b> quizzes with <b>0</b> registered responses
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.5.2 Quiz data editing

The quiz data can be edited in Quiz edit form (Fig. 3.5.2). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.5.3.

### Quiz edit

Area\*

Malmö Museums

Area of the quiz

Name\*

snakes

Unique name of quiz

Full name

Snakes

Description

Snakes don't have ears and eardrums, but they can still sense vibrations on their skin. So while they slither along the ground they can feel the movements of animals around them. But what about the Green Tree Python that spends its Days up in the branches of trees?

Location

-----

Location of the quiz

Item

Snakes

Quiz for item

Language\*

pl  
en  
se

Active

Save Close

Fig. 3.5.2 Quiz edit form.



**Table 3.5.3. Quiz edit form fields.**

Field	Meaning
Area	The area to which the quiz has been assigned
Name	Short name of the quiz. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the quiz (as presented to visitors)
Description	Text content assigned to the quiz – to be displayed before the first question
Location	The location to which the quiz has been assigned
Item	The item to which the quiz has been assigned
Language	The languages for which the quiz translations are available. Note: this is for informational purposes only, the actual questions have to be translated
Active	Marks whether the quiz is active. Note 1: new questions can only be added to <b>inactive</b> quizzes. Note 2: only the active quizzes are visible in the eguide app: it can be used to keep a quiz inaccessible until its content is finished and could be presented to visitors.

### 3.5.3 Quiz questions screen

The quiz questions can be defined using Question list (Fig. 3.5.3). The meaning of its respective fields in their order of appearance is explained in Table 3.5.4. **Note:** the current version of the universal eguide app supports only one question per quiz. Use multiple quizzes to specify more questions.

Home / Quizzes / Questions

### Quiz details

Name: snakes  
Full name: Snakes [+ Add question](#)

No.	Description	Type	Answer value type	Correct value	Options	File	Translations
1.	How does the Green Tree Python find its prey? [id: 28]  Translations: <a href="#">+</a>	select	text	Yes, many snakes have what's called Organ Pits that can detect infra-red light and heat sources. Even in a dark dense forest they can see their prey and sneak up on them.	<a href="#">+</a> Vision [id: 45] <a href="#">-</a> <a href="#">+</a> Heat [id: 46] <a href="#">+</a> <a href="#">+</a> Smell [id: 47] <a href="#">-</a> <a href="#">+</a> Sound [id: 48] <a href="#">-</a> <a href="#">+ Add option</a>		<a href="#">+</a> <a href="#">+</a> <a href="#">+</a> <a href="#">+</a>

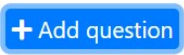








Fig. 3.5.3 Question list.

Table 3.5.4. Question list columns.

Column	Content
Name	Short name of the quiz. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the quiz (as presented to visitors)
No.	Just an ordinal number (regards the question), given automatically
Description	The text of the question
Translations	Translations of quiz question
Type	Can be one of the following: <b>open</b> (the user inputs the answer as text), <b>select</b> (the user selects one answer from the predefined set), <b>multiselect</b> (the user selects answers from the predefined set)
Answer value type	Can be one of the following: text (the user inputs the answer as any text), number (the user inputs the answer as number), date (the user inputs the answer as date), time (the user inputs the answer as time), date and time (the user inputs the answer as composed of date and time).
Correct value	The proper answer
Options / Description	The text of the respective answer option
Options / File	The image of the respective answer option. The allowed file formats are PNG and JPG.
Options / Translations	The translations of the respective answer option

The quiz list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.5.5.

**Table 3.5.5. Question list user interface components explanation.**

Displayed (example)	Meaning	Action
	Add new question	Add a new quiz question
	Add new translation	Add a new question or answer translation
	Move the question or option one place up (change the order of the questions or proposed answers)	Click on the arrow to move the option one place up
	Move the question or option one place down (change the order of the questions or proposed answers)	Click on the arrow to move the option one place down
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
 [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
	The option answer is wrong	
	The option answer is correct	
	Question editor	Access Question edit form for browsing and editing the list of questions assigned to the quiz
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.5.4 Quiz question data editing

The quiz questions can be edited using Question edit form (Fig. 3.5.4). The meaning of its respective fields in their order of appearance is explained in Table 3.5.6.

✕
**Question edit for quiz: snakes**

Description\*

Type

Type of answer

Correct value

File

Save
Close

**Fig. 3.5.4 Question edit form.**

**Table 3.5.6. Question edit form fields.**

Field	Meaning
Description	The text of the question
Type	Can be one of the following: <b>open</b> (the user inputs the answer as text), <b>select</b> (the user selects one answer from the predefined set), <b>multiselect</b> (the user selects answers from the predefined set)
Type of answer	Can be one of the following: text (the user inputs the answer as any text), number (the user inputs the answer as number), date (the user inputs the answer as date), time (the user inputs the answer as time), date and time (the user inputs the answer as composed of date and time).
Correct value	The proper answer
File	The image of the question. The allowed file formats are PNG and JPG.

### 3.5.5 Quiz answer data editing

The quiz answers can be edited using Answer option edit form (Fig. 3.5.5). The meaning of its respective fields in their order of appearance is explained in Table 3.5.7.

**Option add for question: how does the green tree python find its prey?** ✕

Description\*

Correct

File

Wybierz plik

 Nie wybrano pliku

[Save](#) [Close](#)

**Fig. 3.5.5 Answer option edit form.**

**Table 3.5.7. Answer option edit form fields.**

Field	Meaning
Description	The text of the respective answer option
Correct	Whether the answer option is correct
File	The image of the answer option. The allowed file formats are PNG and JPG.

### 3.5.6 Embedding quiz in route

In order to embed a quiz in one of your routes, the following workflow is suggested:

1. Add a new item (under name of your choice, to be referenced below as QI) to your route.
2. Note this item is just a placeholder linking your quiz to an exact place on the route. Therefore, do not edit its description or add any resources here as they will not be displayed.
3. Set the item type to Quiz and item kind to Screen, and make the item active.

4. Get to the Quizzes screen (see section 3.5.1) and add a new Quiz (under name of your choice, to be referenced below as QQ).
5. In the Quiz edit form (see section 3.5.2), edit Description field (this will be the text to be displayed), set Item field to the QI item defined in step 1.
6. Do not make the quiz active now (active quizzes cannot have questions added). Save your edits to close the form.
7. Add relevant resources and translations to the newly added QQ quiz.
8. Click on the Questions button in the QQ's row to proceed to the Quiz question screen (see section 3.5.3).
9. Add a new question. Note that at the moment, the app displays only one question of each quiz so do not add more than one question per quiz.
10. In the Question edit form (see section 3.5.4), edit the question's text (to be displayed below the description defined in QQ). Upload image file if the question is visual rather than textual.
11. Set question Type to Select. Note that at the moment, the app does not handle other types of questions.
12. You do not have to set fields Type of answer and Correct value as they have no meaning for Select-type questions.
13. Use Add option button to add alternative answers.
14. In the Quiz answer edit form (see section 3.5.5), use Description field to edit the text to be displayed for a given option or File button to upload an image to be displayed instead of text.
15. Tick Correct checkbox to mark an option as the correct answer.
16. Back in the Quiz question screen, use blue arrows to change the display order of answers.
17. Go back to the Quizzes screen and make QQ Active.
18. For testing, visit the QI item in the app.
19. Note that changes to the quiz are not allowed after answers have been submitted. Ask your CMS administrator to clear the collected answers in such a case.
20. If you want to trigger gamification rules (e.g. award points for good answers) after completing the quiz, set up the relevant rules in Rules screen (see section 3.8.4).

## 3.6 Defining surveys

### 3.6.1 Surveys screen

The surveys allow to present the users with questions and allow them to answer them. The surveys can be defined using Survey list (Fig. 3.6.1). Note: Full name is what a visitor can see, Name is just for internal use within the CMS. The meaning of its respective fields in their order of appearance is explained in Table 3.6.1.

Note that, in order to be available to visitors, the survey has to be assigned to at least one either location or item, as well as set as active.

Home / Surveys

Search + Add survey

No.	Name	Full name	Thanks text	Description	Creation date
1.	mm_survey [id: 3]	Visitor Experience Survey <b>Translations:</b> <span style="background-color: #007bff; color: white; padding: 2px 5px;">+ Add</span>	Thanks for completing the survey! Have a nice day! <b>Translations:</b> <span style="background-color: #007bff; color: white; padding: 2px 5px;">+ Add</span>	Please answer just few questions regarding you experience with our tour <b>Translations:</b> <span style="background-color: #007bff; color: white; padding: 2px 5px;">+ Add</span>	2020-03-23 19:43:39
2.	test_s [id: 2]	<b>Translations:</b> <span style="background-color: #007bff; color: white; padding: 2px 5px;">+ Add</span>	<b>Translations:</b> <span style="background-color: #007bff; color: white; padding: 2px 5px;">+ Add</span>	<b>Translations:</b> <span style="background-color: #007bff; color: white; padding: 2px 5px;">+ Add</span>	2020-01-26 21:39:42

**Fig. 3.6.1** Survey list screen.

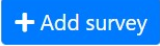




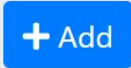



**Table 3.6.1.** Survey list columns.

Column	Content
No.	Just an ordinal number, given automatically
Name	Short name of the survey. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the survey (as presented to visitors)
Thanks text	Text content assigned to the survey – to be displayed after the last question
Description	Text content assigned to the survey – to be displayed before the first question
Translations	Translations of the text content assigned to the survey
Creation date	The time of creating the survey.
Fullfilments	Number of survey answers received so far.
Active	Marks whether the survey is active. Note 1: new questions can only be added to <b>inactive</b> surveys. Note 2: only the active surveys are visible in the eguide app: it can be used to keep a survey inaccessible until its content is finished and could be presented to visitors.

The survey list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.6.2.

**Table 3.6.2.** Survey list user interface components explanation.

Displayed (example)	Meaning	Action
<input type="text"/> <span style="background-color: #007bff; color: white; padding: 2px 5px;">Search</span>	Full text filter	Enter any text in the text box then press Search. Only surveys having the entered phrase in Name,

Displayed (example)	Meaning	Action
		Full name or Description will be listed. Clear the text box then press Search to list all the surveys.
	Add new survey	Add a new survey
	Browsed list segment	Click on a number to get to the specified list segment. Click on triangles to move forward/backward between browsed list segments.
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
	List of survey answers received so far	Download the list of survey answers so far as an Excel spreadsheet
	New element (e.g. a new translation).	Add a new element
	Survey editor	Access Survey edit form for detailed content of the list element for browsing and editing
	Question editor	Access Question edit form for browsing and editing the list of questions assigned to the survey. <b>Note:</b> it is only accessible for inactive surveys
	Trash bin	Delete list element (Warning! The deletion is irreversible!)



---

### 3.6.2 Survey data editing

The survey data can be edited in Survey edit form (Fig. 3.6.2). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.6.3.

## Survey edit

Area\*

Malmo Museums

Area of the survey

Name\*

mm\_survey

Unique name of survey

Full name

Visitor Experience Survey

Thanks text

Thanks for completing the survey! Have a nice day!

Description

Please answer just few questions regarding you experience with our tour

Location

-----

Item

-----

Survey for item

Language\*

pl  
en  
se

Active

Save Close

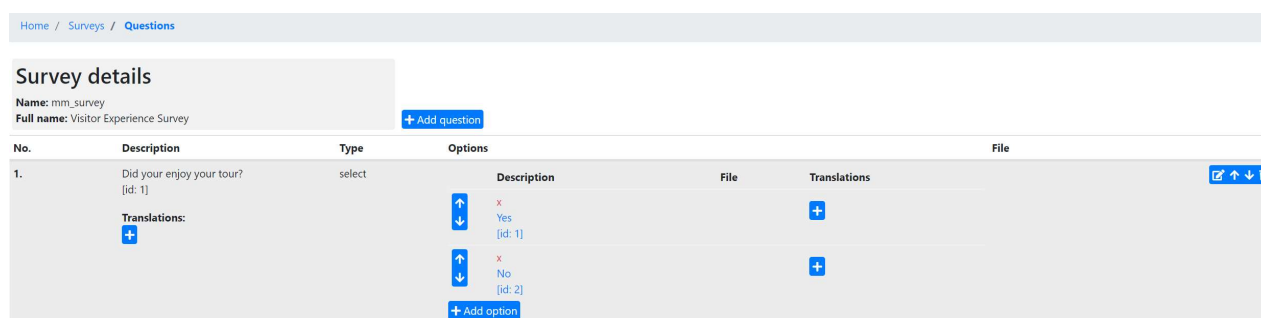
**Fig. 3.6.2 Survey edit form.**

**Table 3.6.3. Survey edit form fields.**

Field	Meaning
Area	The area to which the survey has been assigned
Name	Short name of the survey. The "Name" field has fixed structure: only lowercase letters, numbers and the "_" character. Name field serves as a unique identifier and alternative to numeric ID.
Full name	Full name of the survey (as presented to visitors)
Description	Text content assigned to the survey – to be displayed before the first question
Thanks text	Text content assigned to the survey – to be displayed after the last question
Location	The location to which the survey has been assigned
Item	The item to which the survey has been assigned
Language	The languages for which the survey translations are available. Note: this is for informational purposes only, the actual questions have to be translated
Active	Marks whether the survey is active. Note 1: new questions can only be added to <b>inactive</b> surveys. Note 2: only the active surveys are visible in the eguide app: it can be used to keep a survey inaccessible until its content is finished and could be presented to visitors.

### 3.6.3 Survey questions screen

The survey questions can be defined using Survey question list (Fig. 3.6.3). The meaning of its respective fields in their order of appearance is explained in Table 3.6.4.



**Fig. 3.6.3 Survey question list.**




**Table 3.6.4. Survey question list columns.**

Column	Content
No.	Just an ordinal number (regards the question), given automatically
Description	The text of the question
Translations	Translations of quiz question
Type	Can be one of the following: <b>open</b> (the user inputs the answer as text), <b>select</b> (the user selects one answer from the predefined set), <b>multiselect</b> (the user selects answers from the predefined set)
Options / Description	The text of the respective answer option
Options / File	The image of the respective answer option. The allowed file formats are PNG and JPG.
Options / Translations	The translations of the respective answer option

The survey list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.6.5.

**Table 3.6.5. Survey question list user interface components explanation.**

Displayed (example)	Meaning	Action
	Add new question	Add a new survey question
	Add new translation	Add a new question or answer translation
	Move the question or option one place up (change the order of the questions or proposed answers)	Click on the arrow to move the option one place up

Displayed (example)	Meaning	Action
	Move the question or option one place down (change the order of the questions or proposed answers)	Click on the arrow to move the option one place down
[id: 2]	The physical ordinal number (provided for developers for eguide testing purposes).	None
<b>Translations:</b>	If translations of a given element can be stored within the CMS, they are listed below this heading	None
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
	Survey question editor	Access Question edit form for browsing and editing the list of questions assigned to the survey
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.6.4 Survey question data editing

The quiz questions can be edited using Survey question edit form (Fig. 3.6.4). The meaning of its respective fields in their order of appearance is explained in Table 3.6.6.

✕
**Question edit for survey: mm\_survey**

Description\*

Type

select
▼

File

Nie wybrano pliku

Save
Close

**Fig. 3.6.4 Survey question edit form.**

**Table 3.6.6. Survey question edit form fields.**

Field	Meaning
Description	The text of the question
Type	Can be one of the following: <b>open</b> (the user inputs the answer as text), <b>select</b> (the user selects one answer from the predefined set), <b>multiselect</b> (the user selects answers from the predefined set)
File	The image of the question. The allowed file formats are PNG and JPG.

### 3.6.5 Survey answer data editing

The survey answers can be edited using Answer option edit form (Fig. 3.5.5). The meaning of its respective fields in their order of appearance is explained in Table 3.6.7.

✕
**Option add for question: did your enjoy your tour?**

Description\*

File

Wybierz plik Nie wybrano pliku

Save
Close

**Fig. 3.6.5 Survey answer option edit form.**

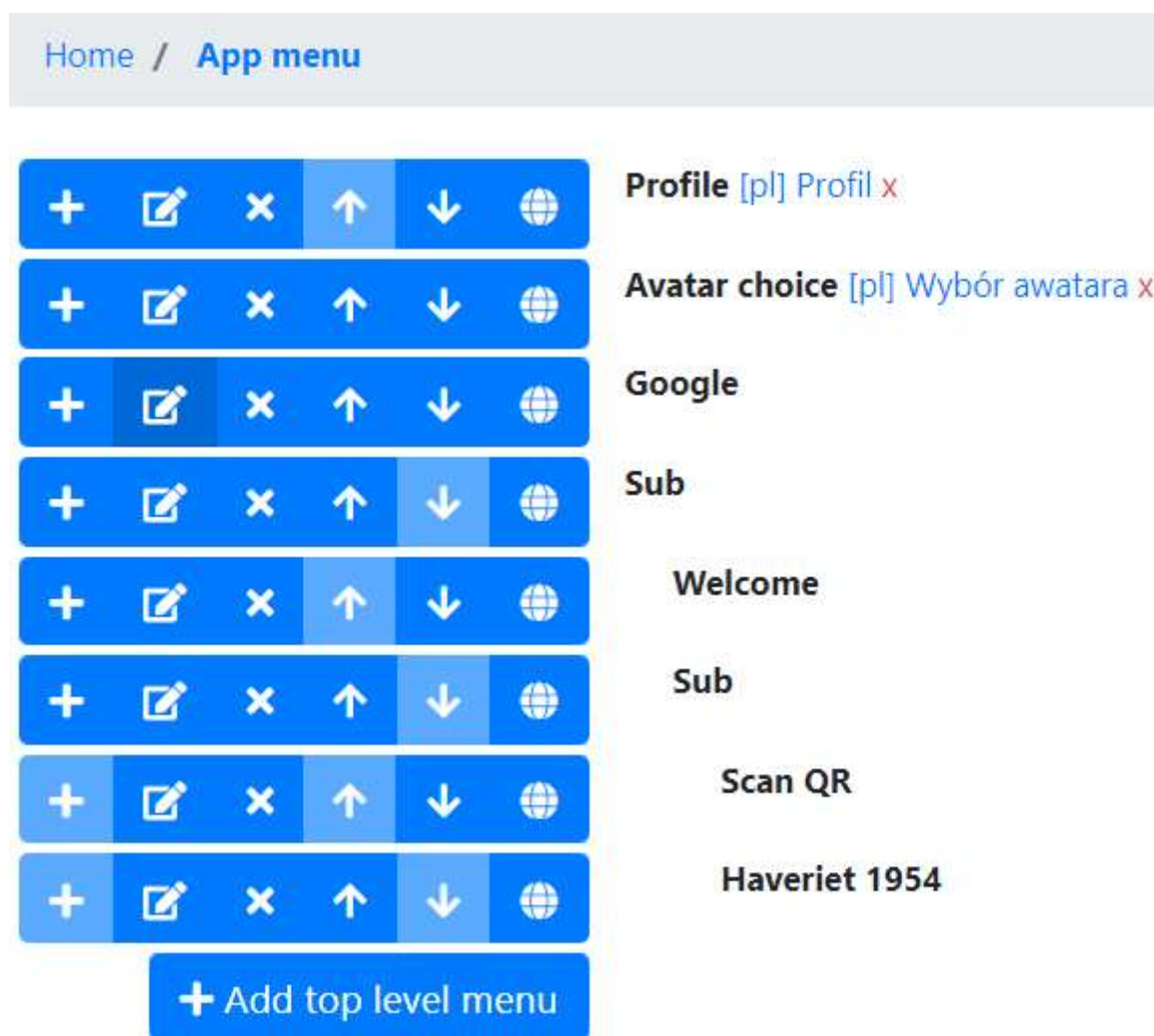
**Table 3.6.7. Survey answer option edit form fields.**

Field	Meaning
Description	The text of the respective answer option
File	The image of the answer option. The allowed file formats are PNG and JPG.

## 3.7 App navigation configuration

### 3.7.1 App menu editing

The app features a configurable foldable menu. In order to edit the menu items, use the App menu screen (Fig. 3.7.1).






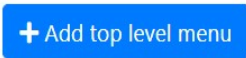
**Fig. 3.7.1. App menu edit screen.**

The app menu editor user interface features elements represented using specific symbols and icons. Their meaning is explained in Table 3.7.1.

**Table 3.7.1. App menu editor UI elements.**

Displayed (example)	Meaning	Action
	New subitem	Click on the button to add a new menu item as a subitem of the chosen one
	Add new translation	Click on the button to add a new question or answer translation
	Delete menu item	Click on the button to delete the chosen menu item



Displayed (example)	Meaning	Action
	Move the menu item one place up (change the order of the menu items)	Click on the arrow to move the option one place up
	Move the menu item one place down (change the order of the menu item)	Click on the arrow to move the option one place down
	Add translation	Click on the button to add a new translation for the chosen menu item
	New top-level item	Click on the button to add a new menu item at the top menu level
x [pl] Strona testowa	Translation to specific language (the language symbol is given in square brackets).	Click red X to delete that translation. Click translated text to edit it.
<b>Avatar choice</b>	Menu item	None.

The menu items can be edited using App menu edit form (Fig. 3.7.2). The meaning of its respective fields in their order of appearance is explained in Table 3.7.2.

## App menu edit

Parent

Sub

Title\*

Welcome

Item

-----

Url

/welcome

Active

**Fig. 3.7.2. App menu edit form.**

**Table 3.7.2. App menu edit form fields.**

Field	Meaning
Parent	The menu item to which the edited menu item is attached as subitem
Title	The name of the menu item
Item	The item to which the edited menu item points. If the destination item kind is Screen, the user will be navigated to the specified item; if the destination item kind is Popup, the user will be

Field	Meaning
	shown the specified item, then he/she will return to the menu. <b>Note:</b> either Item or Url fields should be set, not both at the same time.
Url	The URL to which the edited menu item points. If the URL is a full link (e.g. www.google.com), a new browser tab with the URL specified in that item will be opened; If the URL is relative link (e.g. /profile), the user will be navigated to the specified application screen (see section 3.7.2). <b>Note:</b> either Item or Url fields should be set, not both at the same time.
Active	Marking the edited menu item as active. Only active items are visible in the app menu.

### 3.7.2 Predefined application screens

The app displays predefined screens at specific URLs. See Table 3.7.3 for a list of such screens.

**Table 3.7.3. Links to predefined app screens.**

Link	Application screen
/about	About screen
/area	List of areas
/area/:id/routes	List of routes in the area specified by :id, e.g. /area/1/routes
/item/:id	Item specified by :id, e.g. /item/1
/language	Language selection screen
/location/:id	The default item at the location specified by :id, e.g. /location /1
/login	Login screen
/profile	User profile screen
/qrcode	QR code scanner
/quiz/:id	Quiz specified by :id, e.g. /quiz/1
/route/:id/locations	List of locations in route specified by :id, e.g. /route/1/locations
/route/:id/map	Map of the route specified by :id, e.g. /route/1/map
/survey/:id	Survey specified by :id, e.g. /survey/1
/team	Team management screen

### 3.7.3 Embedding links within HTML

Links can be embedded in all text elements where HTML is allowed (e.g. item's description field, site's About field etc.). The examples of usage are provided in Table 3.7.4.

**Table 3.7.4. Links within HTML.**

Meaning	Format
To an application screen	<p><code>&lt;a href="/internal_link"&gt;Text to be displayed&lt;/a&gt;</code></p> <p>See Table 3.7.3 for the list of allowed internal links.</p> <p><b>Example:</b> <code>&lt;a href="/profile"&gt;User profile&lt;/a&gt;</code></p>
Display a popup and return	<p><code>&lt;a href="?popup=:id"&gt;Text to be displayed&lt;/a&gt;</code></p> <p>Where <i>:id</i> is the popup item id.</p> <p><b>Example:</b> <code>&lt;a href="?popup=10"&gt;More about it&lt;/a&gt;</code></p>
Display a popup and follow up to another item	<p><code>&lt;a href="/item/41?popup=:id"&gt;Text to be displayed&lt;/a&gt;</code></p> <p>Where <i>:id</i> is the popup item id.</p> <p><b>Example:</b> <code>&lt;a href="/item/41?popup=37"&gt;Exit&lt;/a&gt;</code></p>
To an external website (exit the app)	<p><code>&lt;a href=":url"&gt;Text to be displayed&lt;/a&gt;</code></p> <p>Where <i>:url</i> is the target URL.</p> <p><b>Example:</b> <code>&lt;a href="https://google.com"&gt;Google&lt;/a&gt;</code></p>
To an external website (to be opened in a separate browser card)	<p><code>&lt;a href=":url"&gt;Text to be displayed&lt;/a&gt;</code></p> <p>Where <i>:url</i> is the target URL.</p> <p><b>Example:</b> <code>&lt;a href="http://google.com" target="_blank"&gt;Google&lt;/a&gt;</code></p>
Presented as an image	<p><code>&lt;a href=":target_url"&gt; &lt;img alt="Text to be displayed instead of image" src=":image_url" width=":width" height=":height"&gt; &lt;/a&gt;</code></p> <p>Where <i>:target_url</i> is the target URL, <i>:image_url</i> is the URL of the image to be displayed as the link, <i>:width</i> is the width in which the image will be displayed and <i>:height</i> is the height in which the image will be displayed. Note that <i>:alt</i>, <i>:width</i> and <i>:height</i> are optional, though for accessibility reasons, <i>:alt</i> should not be skipped.</p> <p><b>Example:</b></p> <p><code>&lt;a href="/profile"&gt; &lt;img src="https://test.net/private-media-api/item/bolek.jpg" alt="Bolek"&gt; &lt;/a&gt;</code></p>

## 3.8 Gamification configuration

### 3.8.1 Badges screen

The badges are visual rewards that can be given to visitors for completing challenges. The badges can be defined using Badges list (Fig. 3.8.1). The meaning of its respective fields in their order of appearance is explained in Table 3.8.1.

The screenshot shows a web interface for managing badges. At the top, there is a breadcrumb 'Home / Badges', a search bar, and an '+ Add badge' button. Below is a table with columns: No., Name, Area, Description, Resources, and Active. Two entries are visible:

No.	Name	Area	Description	Resources	Active
1.	bronze [id: 1]	Malmö Museums	Bronze Translations: x [pl] Brązowy + Add translation	x [image] Badge card Translations: Add x [icon] badge icon Translations: Add + Add	✓
2.	silver [id: 2]	Malmö Museums	Silver Translations: x [pl] Srebrny + Add translation	x [image] Badge card Translations: Add x [icon] badge icon 1 Translations: Add + Add	✓

Fig. 3.8.1 Badges list.

Table 3.8.1. Badges list fields.

Column	Content
No.	Just an ordinal number (regards the badge), given automatically
Name	The name of the badge (to be used in Rules as a Result)
Area	The area for which the badge is defined
Description	The description of the badge
Translations	Translations of badge description
Resources	Resources associated with the badge. Resource type icon: the small image representing the badge. The allowed file formats are PNG and JPG. The expected image size is 128x128 pixels.
Active	Marks whether the badge is active.

### 3.8.2 Rules screen

The rules define conditions (e.g. defining challenge completion) and results (e.g. rewards for challenge completion). The rules can be defined using Rules list (Fig. 3.8.2). The meaning of its respective fields in their order of appearance is explained in Table 3.8.2.

**Fig. 3.8.2 Rules list.**

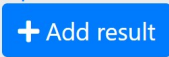





**Table 3.8.2. Rules list fields.**

Column	Content
No.	Just an ordinal number (regards the rule), given automatically
Name	The name of the rule (just for informative purposes, only visible in the editor)
Description	The description of the rule (just for informative purposes, only visible in the editor)
Results	The list of effects to happen if the rule conditions are met
Active	Marks whether the rule is active
Conditions	The list of conditions to be met for the rule results to happen
Check order	Marks the order of when the rule is processed. The rules with higher check order are processed first.

The rules list includes information and/or user interface elements represented using specific symbols and icons. Their meaning is explained in Table 3.8.3.

**Table 3.8.3. Rules list user interface components explanation.**

Displayed (example)	Meaning	Action
<input type="text"/> <input type="button" value="Search"/>	Full text filter	Enter any text in the text box then press Search. Only rules having the entered phrase in Name or Description will be listed. Clear the text box then press Search to list all the rules.
<input type="button" value="+ Add rule"/>	Add new rule	Add a new rule
	Marking the sort order (ascending or descending) and the key column upon whose contents the whole list is sorted	Reverse the sort order
	Marking other columns that could be used to sort the list	Change the sort key column
x points: [1]	Rule result. In the example, "points" is the type of result, "1" is the value attached to it (so, in this case, the score will be increased by 1 point).	Click red X to delete this result. Click the text to edit the result.

Displayed (example)	Meaning	Action
	Add a result.	Add another result.
	Marks an active rule.	None
	Condition. In the example, "action type" is what will be checked and "View item" is the value expected from it to trigger the rule (only if the other conditions are met).	Click red X to delete this condition. Click the text to edit the condition.
	Add a condition.	Add another condition. All the conditions have to be met for the rule to be triggered.
	Rule editor	Access Rule edit form for browsing and editing the rules
	Trash bin	Delete list element (Warning! The deletion is irreversible!)

### 3.8.3 Rule data editing

The basic rule definition can be edited in Rule edit form (Fig. 3.8.3). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.8.4.

**Rule edit**
✕

---

Name\*

Description

Check order\*

Active

Save
Close

**Fig. 3.8.3 Rule edit form.**

**Table 3.8.4. Rule edit form fields.**

Field	Meaning
Name	The name of the rule (just for informative purposes, only visible in the editor)
Description	The description of the rule (just for informative purposes, only visible in the editor)
Check order	Marks the order of when the rule is processed. The rules with higher check order are processed first.
Active	Marks whether the rule is active (only active rules are triggered in the eguide app: it can be used to keep a rule inactive until its relevant content is finished and could be presented to visitors)

The rule conditions are edited using Condition edit form (Fig. 3.8.4). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.8.5.



**Condition edit for Rule: add\_point** ✕

**Other conditions:**  
 route in [Natur Bornholm Creatous Time, U3 Submarine, U3 Submarine SV]

Type\*

Operator\*

Action type  

Change language  
 Take photo  
 Play audio  
 Play video  
 Select route  
 Scan QR code  
View item

Save
Close

**Fig. 3.8.4 Condition edit form.**

**Table 3.8.5. Condition edit form fields.**

Field	Meaning
Other conditions	Other conditions defined for this rule (just for informative purposes)
Type	The type of considered conditions. The allowed types are listed in Table 3.8.6.
Operator	<p>The operator used to compare the object (defined by Type) with Parameter.</p> <p>If the type corresponds to an element of a collection, the two parameters available are "in" (the object belongs to) and "not in" (the object does not belong to).</p> <p>If the type corresponds to a value, the symbolic comparison operators (&lt;, &gt;, =, &lt;=, &gt;=, &lt;&gt;) should be used. For instance, if the type is date, use &lt; operator to trigger the rule before the specified date, = to trigger the rule at the specified date, &gt; operator to trigger the rule after the specified date, &lt;= operator to trigger the rule before or at the specified date, &gt;= operator to trigger the rule after or at the specified date, &lt;&gt; operator to trigger the rule before or after but not at the specified date.</p>
Parameter	Specifies the value to which the checked object (defined by Type) will be compared to.

Table 3.8.6 lists the types allowed in condition definition.

**Table 3.8.6. Types allowed in condition definition.**

Type	Expected parameter
Action type	The type of action performed by visitor to trigger the rule. The predefined action types to choose from are: Set avatar (triggered right after avatar is set), Play audio (right after audio playing is finished), Play video (right after video playing is finished), Select route (right after route is selected), Select QR code (right after QR code is successfully decoded), View item (right after an item is displayed in the app).
Area type	The type of area. The type of area is freely editable in Dictionaries / Area types. <b>Note:</b> the current version of the universal eguide app does not provide Area type information for any event.
Area	The name of area. The name of area is freely editable in Area edit form. <b>Note:</b> the current version of the universal eguide app does not provide Area information for any event.
Location Type	The type of location. The type of location is freely editable in Dictionaries / Location types. <b>Note:</b> the current version of the universal eguide app does not provide Location type information for any event.
Location	The name of location. The name of location is freely editable in Location edit form. <b>Note:</b> the current version of the universal eguide app does not provide Location information for any event.
Item type	The type of item. The list of available item types is provided in Table 16. <b>Note:</b> the Item type information is not provided for Select route event.
Item	The name of item. The name of item is freely editable in Item edit form. <b>Note:</b> the Item information is not provided for Select route event.
Route type	The type of route. The type of route is freely editable in Dictionaries / Route types.
Route	The name of route. The name of route is freely editable in Route edit form.
Date	The specific date.
Time	The specific time.
Timestamp	The specific date and time.
Variable value	Value of variable that was set as a result of another rule.
Own item	A virtual item received by visitor as a result of another rule.
Level up	The event of levelling-up which happens when score passes one of the level point thresholds defined in Dictionaries / Levels.

The rule results are edited using Result edit form (Fig. 3.8.5). Use Save to store changes, Cancel to revert them. The meaning of its respective fields in their order of appearance is explained in Table 3.8.7.

✕
**Result add for Rule: add\_point**

**Other results:**  
 points: [1]

Type\*

text

Text

Save
Close

**Fig. 3.8.5 Rule result edit form.**

**Table 3.8.7. Rule result edit form fields.**

Field	Meaning
Other results	Other results defined for this rule (just for informative purposes)
Type	The type of the considered result. The allowed types are listed in Table 3.8.8.
Parameter	Details the result (in the context of Type).

Table 3.8.8 lists the types allowed in result definition.

**Table 3.8.8. Types allowed in result definition.**

Type	Expected parameter
Text	The text to be displayed to the user. As this text cannot be formatted, enriched with images or translated, Text type is deprecated, and Congratulation item type should be used instead, if the result is to be communicated to the user.
Points	The number of points awarded to the user.
Badge	The name of a badge awarded to the user.
Item	The name of a virtual item awarded to the user.
Congratulation item	The item to be displayed to the user.

### 3.8.4 Rule examples

Table 3.8.9 lists some examples of popular gamification rules.

**Table 3.8.9. Examples of gamification rules.**

Description	Results	Conditions
Increase score for viewing an item in a particular route	Type: Points (specify the number of awarded points)	Action type: in [View item] Route: in [Your route name]
Give badge for coming to a location	Type: Badge (specify the kind of badge)	Action type: in [View item] Location: in [Your location name]
Give badge for passing a level	Type: Badge (specify the kind of badge)	Level up: in [level]
Reward good answer in any quiz	Type: Points (specify the number of awarded points)	Action type: in [Good quiz answer]
Set an avatar	Type: Item (specify the relevant Avatar-type item)	Action type: in [Set avatar] Item: in [specify the Avatar-type item, same as in Result]

## 4 Dictionaries

### 4.1 Dictionaries menu

The Dictionaries menu can be used to define dictionary data which are used in various forms. Table 4.1.1 lists the dictionaries which can be edited in the CMS. Note that not every dictionary is visible and can be edited by you if your user account has not got administrative rights.

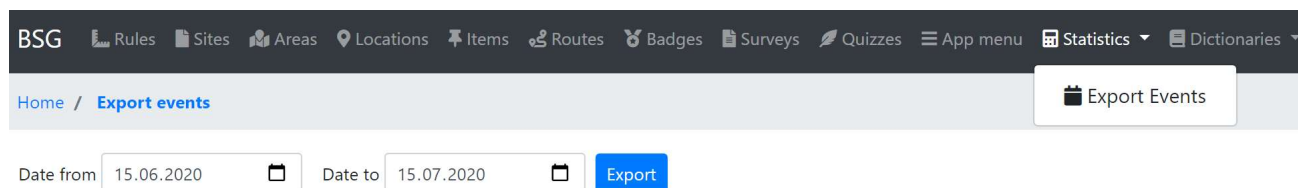
**Table 4.1.1. Editable dictionaries.**

Dictionary	Content
Area types	Area types can be defined for use in gamification rules conditions (i.e. to define rules that apply to all areas of a given type).
Location types	Location types can be defined for use in gamification rules conditions (i.e. to define rules that apply to all locations of a given type).
Item types	Item types are predefined. The list could be extended any time an ability to display a new content type is added to the app. <b>Note:</b> these can be edited by superusers only.
Item kinds	Item kinds are predefined. The list could be extended if any time an ability to display items in a new way is added to the app. <b>Note:</b> these can be edited by superusers only.
Route types	Route types are used to group routes when displayed to the user in the route selection screen of the app.
Action types	Action types are predefined. The list could be extended if any time an ability to handle new user action types is added to the app. <b>Note:</b> these can be edited by superusers only.
Tag	Tags can help in managing and finding relevant items.
UI Translation	Some elements of the app UI can be translated using this dictionary. The others can only be translated by editing the relevant app source files. <b>Note:</b> not used by the current version of the app. See <i>Installation Guide</i> on how to provide additional app UI translations.
Level	Definition of point thresholds at which level-up happens.
Language	List of languages for which content translations are provided.

## 5 Statistics

### 5.1 Export events

Currently, the Statistics menu item will only unfold one option: **Export events** (see Fig. 5.1.1). After clicking it, select the time period for which data should be exported then click the **Export** button.



**Fig. 5.1.1 Statistics: event data export.**

After some time (depending on the number of data and server load – we strongly suggest to limit the time period only to the time since the previous export and then combine the data), a CSV file will be downloaded to your computer. Use any spreadsheet software to open it and make analysis of the data.

Note: the file is configured for use in Microsoft Excel, therefore semicolons are used to delimit data instead of commas, which may require some action/configuration to open the file properly in some of the other editors.

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