GOSPACE
TECHNOLOGIES

S P O T))

Slovak Parking Organisation Technology

#DaTA – SPOT Server Application
client user manual

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1. About the application

SPOT server is a web application designed to oversee your carparks, monitored with SPOT #Detectors by GOSPACE Tech, s.r.o..

2. Access control and authentication

The application has implemented an access control mechanism and each user has to authenticate before starting work:
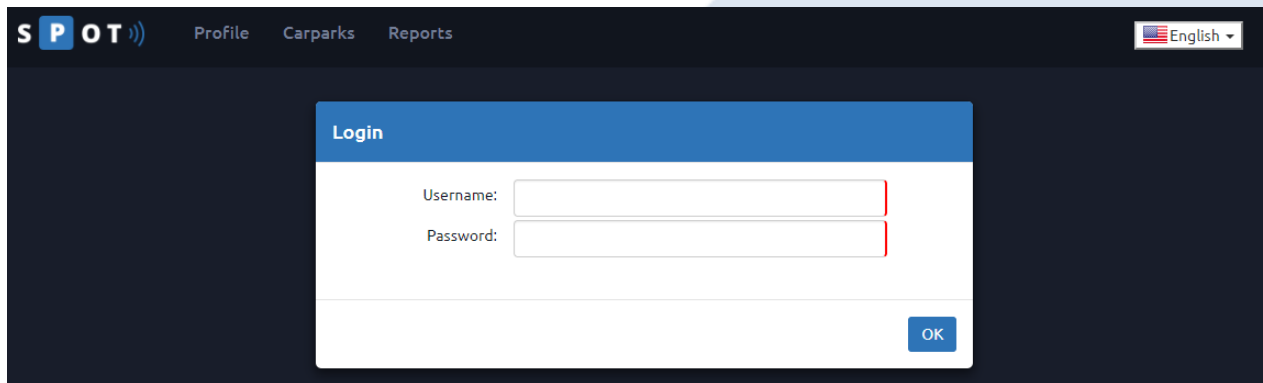
After successful login, the user is allowed to view already defined carparks, edit hi profile, and trigger some report sending.

3. Screen layout of application

Menu bar

At the top of screen is located menu bar displayed at any situation.
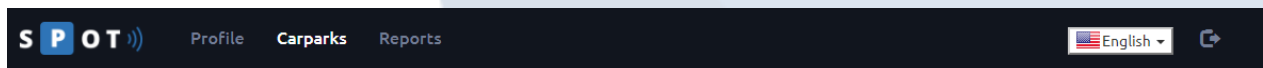
List of available sections is displayed on the top, nearby the application logo.

At the right side of the menu bar, there is a component to switch the language of the application and an icon to logout from the application.

Below the menu bar, content is displayed depending on current section of the application.

4. Profile

This section is designed to manage your profile.

List of all registered customers is displayed as default view.

List of customers should be ordered via selected columns. Actual order settings are indicated by blue color of arrow in column header.
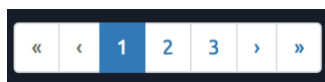
List of customers is separated to pages. Actual page is indicated by blue color. Arrows at left and right sides are designed to navigate to first/previous/next/last page.
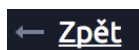
Button to go back to list of registered customers is placed at top right side of screen.

.

✏ Upravit   Beside back button is placed button to edit basic data of registered customer.

Beside pane with basic data of customer are placed list of customer's users and list of reports generated for customer.

🔼
🔽   These lists should be ordered via selected columns. Actual order settings are indicated by blue color of arrow in column header.

Kód ⬍	Název ⬍	Adresa	Počet park. míst	Provoz (#TM/den)	
STRIZKOV-2	Naše parkoviště před barákem (pro Zuzku)	Děčínská 471/4 Praha 9, 19000	10	9	📍 📄 🗑

Customer carparks are displayed below main information about customer.

Interactive map contains "points" identifying position of customer carparks.

List of carparks is placed below this map.

🔼
🔽   List of carparks should be ordered via selected columns. Actual order settings are indicated by blue color of arrow in column header.

📍   Button to center position of carpark in interactive map is placed at right side of each carpark row.

📄   Button to display detail of carpark is placed in list of all carparks at right side of each row.

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5. Carpark

This section is designed to manage information about carparks in SPOT server.

Interactive map with country switcher is displayed at top of screen in default view. Interactive map contains "points" identifying position of customer carparks.

List of all carparks in SPOT server is placed below interactive map.

List of carparks should be ordered via selected columns. Actual order settings are indicated by blue color of arrow in column header.

A list of carparks is separated to pages. Actual page is indicated by blue color. Arrows at left and right sides are designed to navigate to first/previous/next/last page.
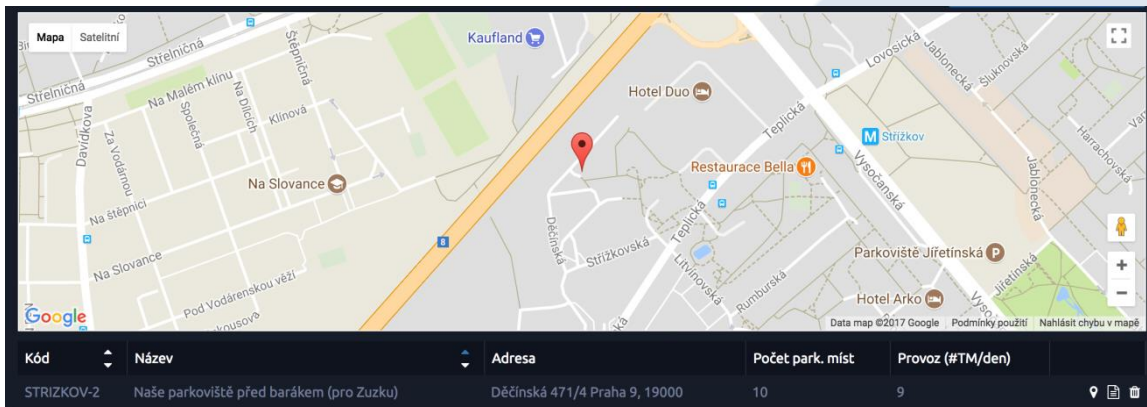
Filter component is displayed above lists, to offer the option for fulltext search within the list.

Button to center position of carpark in interactive map is placed at right side of each carpark row.

Display detail of carpark

Button to display detail of carpark is placed in list of all carparks at right side of each row.
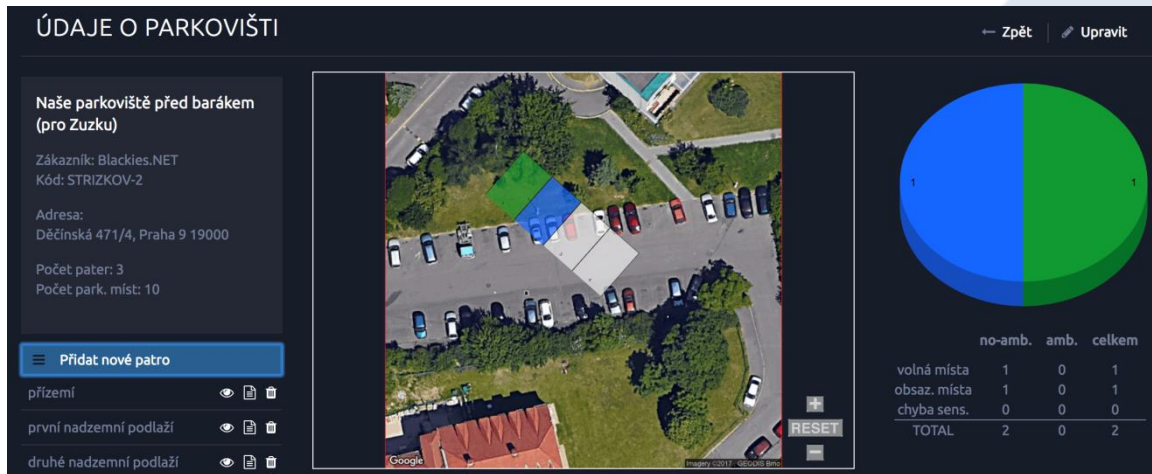
Zpět Button to go back to list of all carparks is placed at top right side of screen.

Upravit Beside back button is placed button to edit basic data about carpark.

Pane with carpark basic data is placed at left top side of screen.

Actual carpark floor design is displayed at top middle part of screen. Floor design should be zoomed or shifted to display requested section of carpark floor.

Occupancy chart of actual carpark floor is displayed at top right part of screen.

Carpark floors

Each carpark consists of one or more floors. Floor contains carpark slots. Sensors are mapped slots.

List of carpark floors is displayed below pane with basic data.
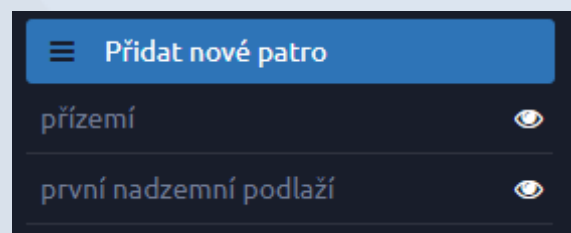
Button to see carpark floor design is placed at right side of each carpark floor row.

6. Reports

Altough report are send automatically each night, you can send reports also manually via this section.
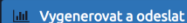
List of already sent reports is placed at top of screen.
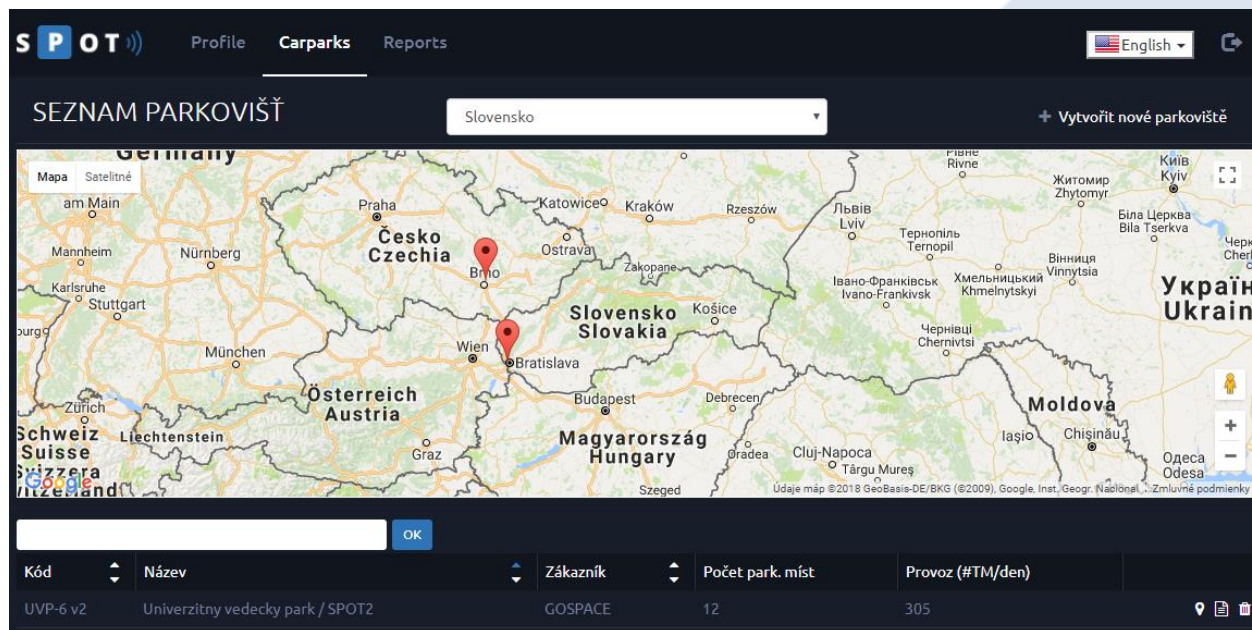
 List of sent report should be ordered via selected columns. Actual order settings are indicated by blue color of arrow in column header.
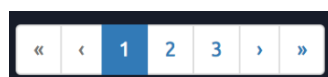
 List of sent reports is separated to pages. Actual page is indicated by blue color. Arrows at left and right sides are designed to navigate to first/previous/next/last page.
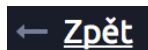

Component to sent report manually is placed below list of sent reports.

Type of report and customer report will be generated on are to be defined in first row.
Option send report to customer or some other addresses is defined in second row.
Special parameters for report should be defined at third row.
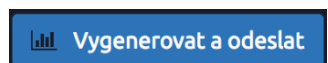
 Button to send report with filled parameters is placed right of component for filling parameters.

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Special parameters

Special parameters have to be defined as JSON string in following format:

{ "<parametr_1_name":"parametr_1_value","parametr_2_name":"parametr_2_value", … }

Allowed parameters:
- history – specify interval in past to include data in generated report; required format of value is <number><unit_letter>; 120M means last 120 minutes, 24H means last 24 hours, 2D means last 2 days, 1Y means last year

Examples:
{ "history":"48H" }   generate report on data from last 48 hours
{ "history":"6D" }   generate report on data from last six days

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7. Data exports

SPOT server provides exports of carpark slot statuses to third-party systems. There two ways to get these statuses. First option called **pull export** is initialized on customer requests and requested statuses are reported to customer third-party software. Second option called **push export** is initialized by change of carpark slot status in SPOT server and this change is automatically announced to customer third-party software.

A) Pull export

These data exports are allowed only for authenticated users of customers. Credentials for this authentication are identical to credentials used to login to SPOT server application.

Authentication

To authenticate is needed to send username and password to dedicated url address. In case of successful authentication response will contain unique token named **sessionid**, which should be used in later exports of carpark slot statuses. This token has limited time live period.

Call URL: api.php?action=loginUser
Call parameters:
```
{
 'username':'<username>',
 'password':'<password>'
}
```
Response (successful authentication):
```
{
 "userid":"2",
 "userFullname":"Petr Kos",
 "sessionid":"52043b88d7475912ab587f6d69d0f1bc"
}
```
Response (unsuccessful authentication):
```
{
 "error":true,
 "message":"Login failed, check username and password."
}
```

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Export

It is possible to get carpark slot statuses after successful authentication.. This request has to contain valid auth token, carpark identification and optionally floor if customer needed statuses of specific carpark slots. Response will contain UNIX timestamp of current request and list of carpark slot with id, number, status and duration in seconds of actual status.

Call URL: api.php?action=getCarparkSlotsStatus
Call parameters:
```
{
  "carpark" => "1",
  "floor" => "0",
  "sessid" => "12c077783a520d4809645d783b9fe960"
}
```
Response:
```
{
  "timestamp":1515799071,
  "slots":[
      {"id":"1","number":"1","status":"FREE","duration":86757},
      {"id":"2","number":"2","status":"BUSY","duration":316741},
      {"id":"3","number":"3","status":"BUSY","duration":296123}
  ]
}
```

B) Push export

To setup push export of carpark slot statuses it's needed to save call URL of customer third-party software in customer detail (described in separate chapter earlier). This URL is called each time any customer carpark slot status is changed. This call contains identification of carpark and carpark slot and status of carpark slot.

Parameters passed to call URL:
```
{
  "carpark_id":"1",
  "carpark_code":"UVP-6 v2",
  "id":"1",
  "number":"1",
  "status":"FREE"
}
```