

## GIS4Mobile manual

This manual describes setup and use of GIS4Mobile.

### Brief description

GIS4Mobile is an app that you can install on tablet or smartphone.

The app communicates with the GIS4Mobile webservice, from whom it downloads specific user setup and stores point and mapdata, new and existing.

Successful configuration of the system therefor requires understanding the 3 parts:

- Database setup
- User profile setup
- Use of the GIS4Mobile app

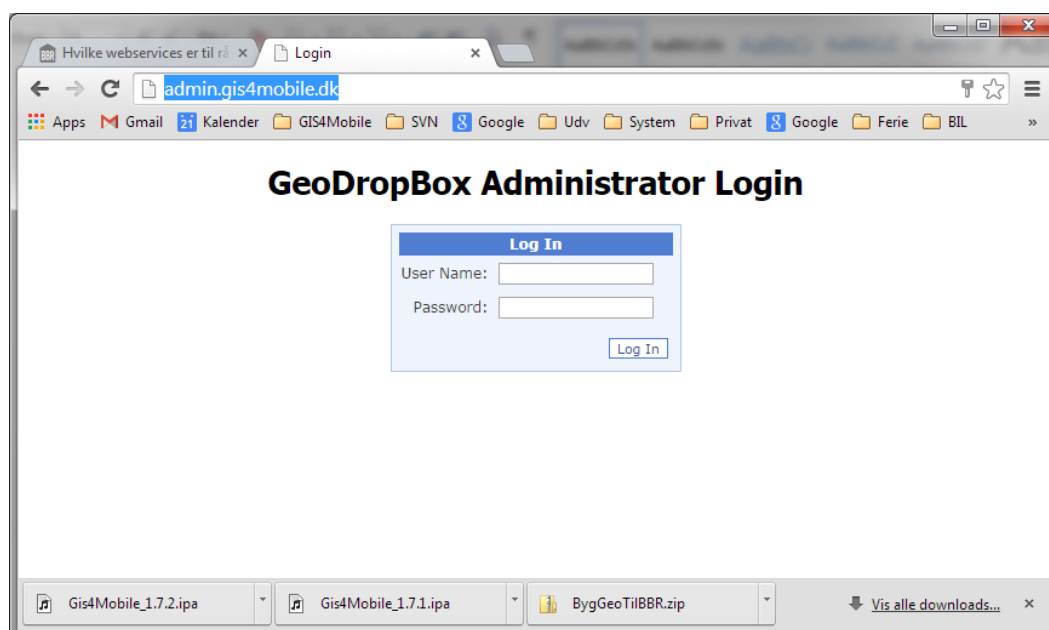
For all functions the username/password is needed.

Easy access to the setup menus can be found on the website: <http://www.gis4mobile.com/control-panel.aspx>

### Database setup

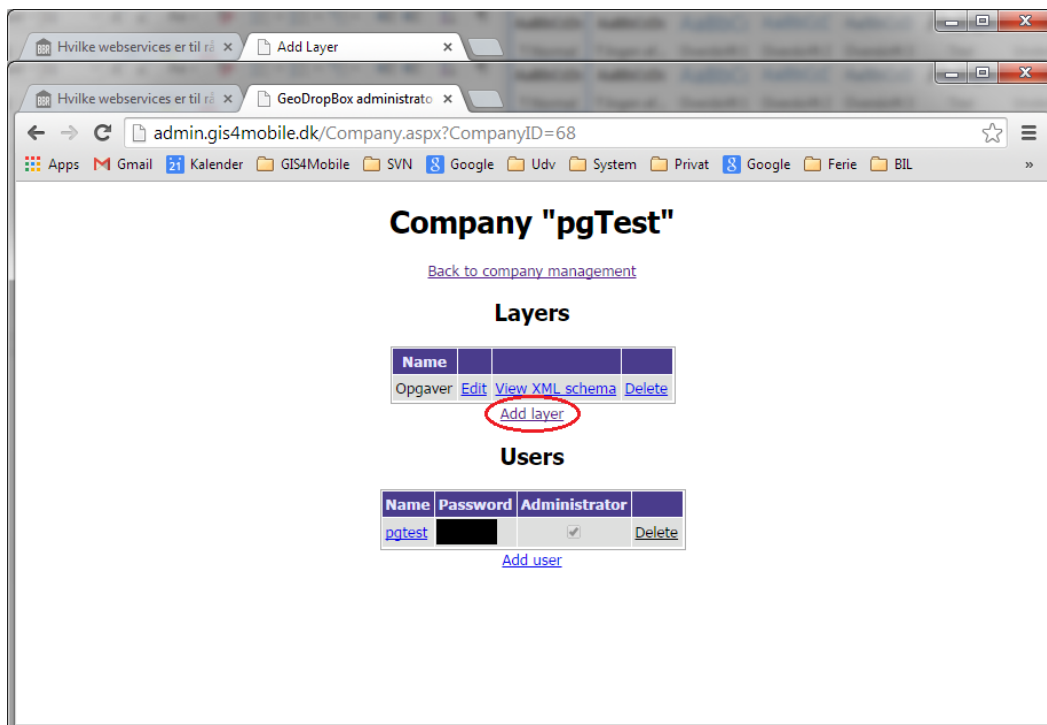
This describes how to configure the GIS4Mobile Web Services, which essentially is a database, containing the table that store your data.

The website is reached here: <http://admin.gis4mobile.dk/>



Username and login is supplied from GIS4Mobile.

After login the existing tables ("layers") can be inspected and edited:

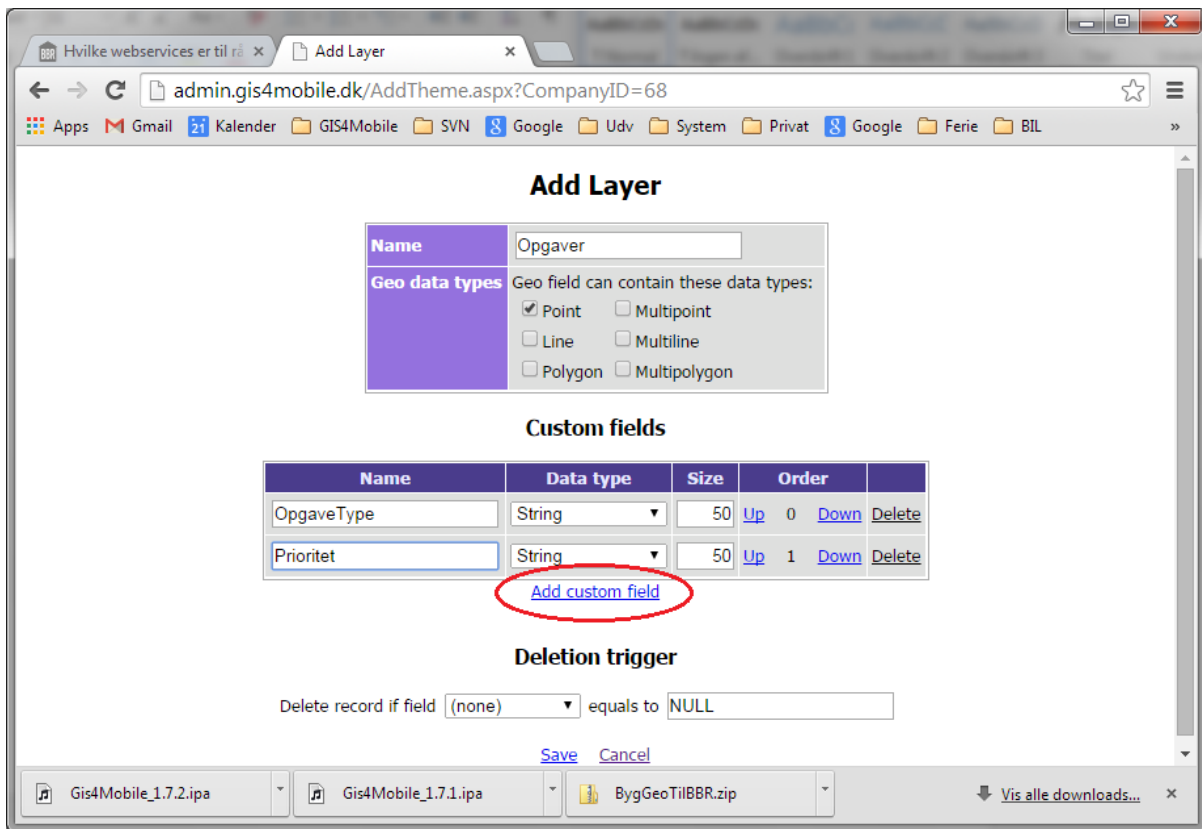


The list show existing tables ("layers"), and existing usernames.

In the following a new table is setup:

Click on AddLayer.

## Add table (Add Layer)



We have input the table name "Opgaver" and chosen geo data type "Point".

Parts of the GIS4Mobile system is designet to only handle 1 geo data type per table – therefore choose only 1 geo data type.

The figure shows two added Custom fields: "OpgaveType" og "Prioritet".

Add more fields with the funtion: **Add custom field**

The custom field can consist of 4 types:

String	Any type of caracters	
Integer		Requires the user to input only integers
Yes / No	True/false value	Is normally used as a checkbox, selected/not selected
Date and Time		

### Deletion trigger.

In this parts it can be specified that a certain value will result in record being deleted.



## Edit Layer

It is possible to edit the structure of an existing table: Click on Edit:

### Layers

Name			
Opgaver	<a href="#">Edit</a>	<a href="#">View XML schema</a>	<a href="#">Delete</a>

[Add layer](#)

We advise only to change one parameter at a time, and click save after each change.

### Custom fields

Name	Data type	Size	Order	
OpgaveType	String	50	Up 0 Down	<a href="#">Delete</a>
Prioritet	String	50	Up 1 Down	<a href="#">Delete</a>
TilsynDato	Date and time	18	Up 2 Down	<a href="#">Delete</a>
TilsynInterval	Integer	11	Up 3 Down	<a href="#">Delete</a>

[Add custom field](#)

### Deletion trigger

Delete record if field  equals to

[Save](#) [Cancel](#)

Also we advise against modifying the structure if data is being synchronized with your GIS.

## Add users to a table

Click on the username:

### Users

Username	Password	Administrator	
<a href="#">pgtest</a>	██████████	<input checked="" type="checkbox"/>	<a href="#">Delete</a>

[Add user](#)

The Access rights are selected in regard to each table.

### Edit user

User name	<input type="text" value="pgtest"/>
Password	<input type="password" value="██████████"/>
Super administrator	<input checked="" type="checkbox"/> Yes

Theme	Access rights
Opgaver	<input checked="" type="checkbox"/> Reader <input checked="" type="checkbox"/> Writer <input checked="" type="checkbox"/> Admin

[Save](#) [Cancel](#)

It is possible to add more users, if the organization wants to limit access for some users.



# GIS4Mobile

## Add userprofiles

The GIS4Mobile app downloads a userprofile that defines how data and maps are used and displayed, and how data is collected etc.

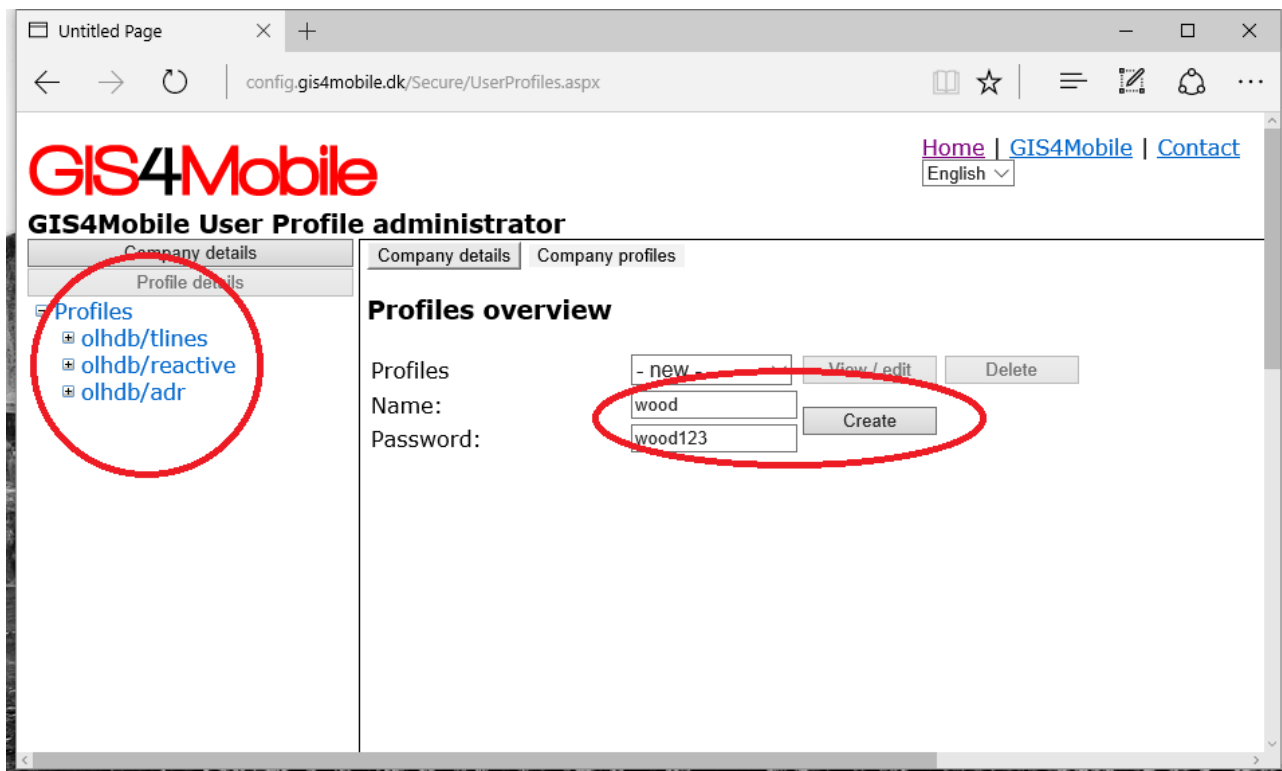
Userprofiles are setup on a webpages on this link: <http://config.gis4mobile.dk/login.aspx>



The screenshot shows a web browser window with the URL [config.gis4mobile.dk/login.aspx](http://config.gis4mobile.dk/login.aspx). The page features the GIS4Mobile logo and navigation links for Home, GIS4Mobile, and Contact. Below the logo, the text "GIS4Mobile User Profile administrator" is displayed. A "Login" section contains a "Login name:" label, a text input field with "company/admin", a "Password" label, a password input field with masked characters, and a "Login" button.

Input Login name and password, and click Login.

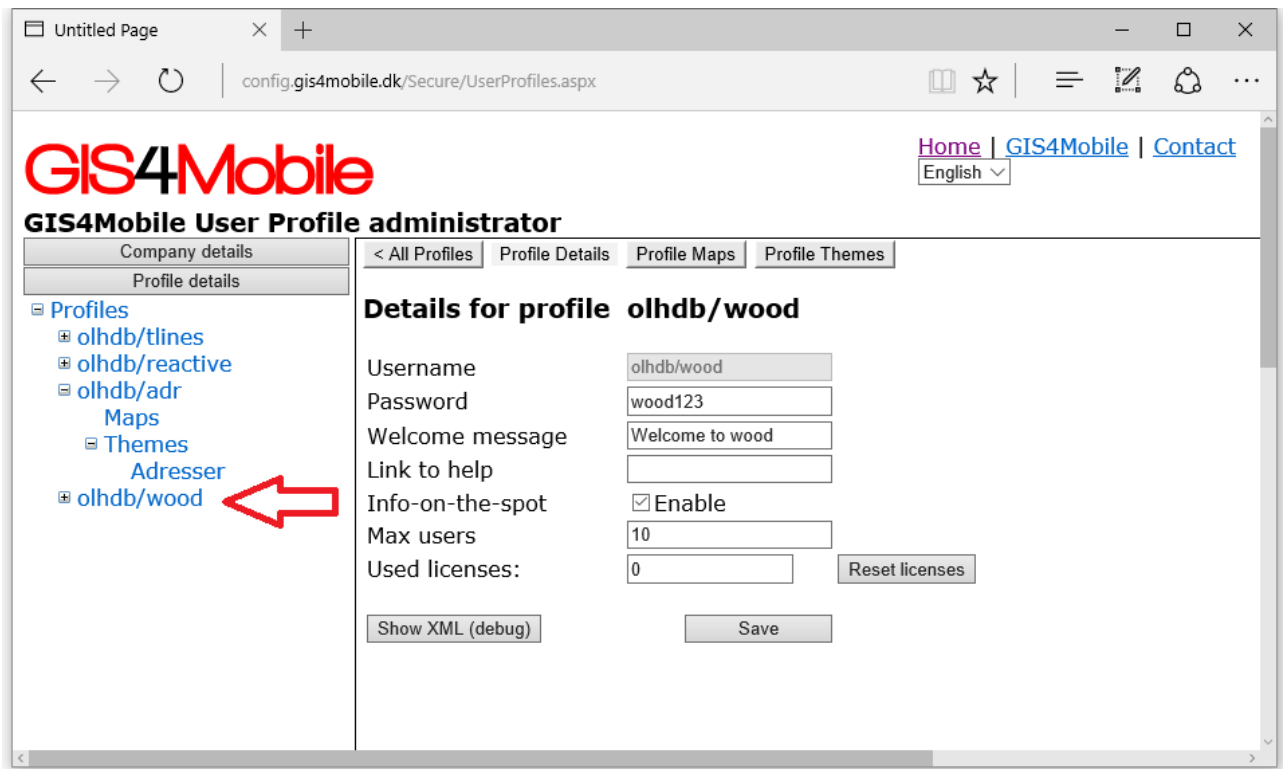
If login is successful the next window will display your profiles.



On the left the tree structure lists your existing profiles, and gives a nice overview and quick access to different userprofiles. For every userprofile you can expand and see which themes and maps are enabled.

You can add a new profile by selecting "-new-", input username and password, and click "Create"

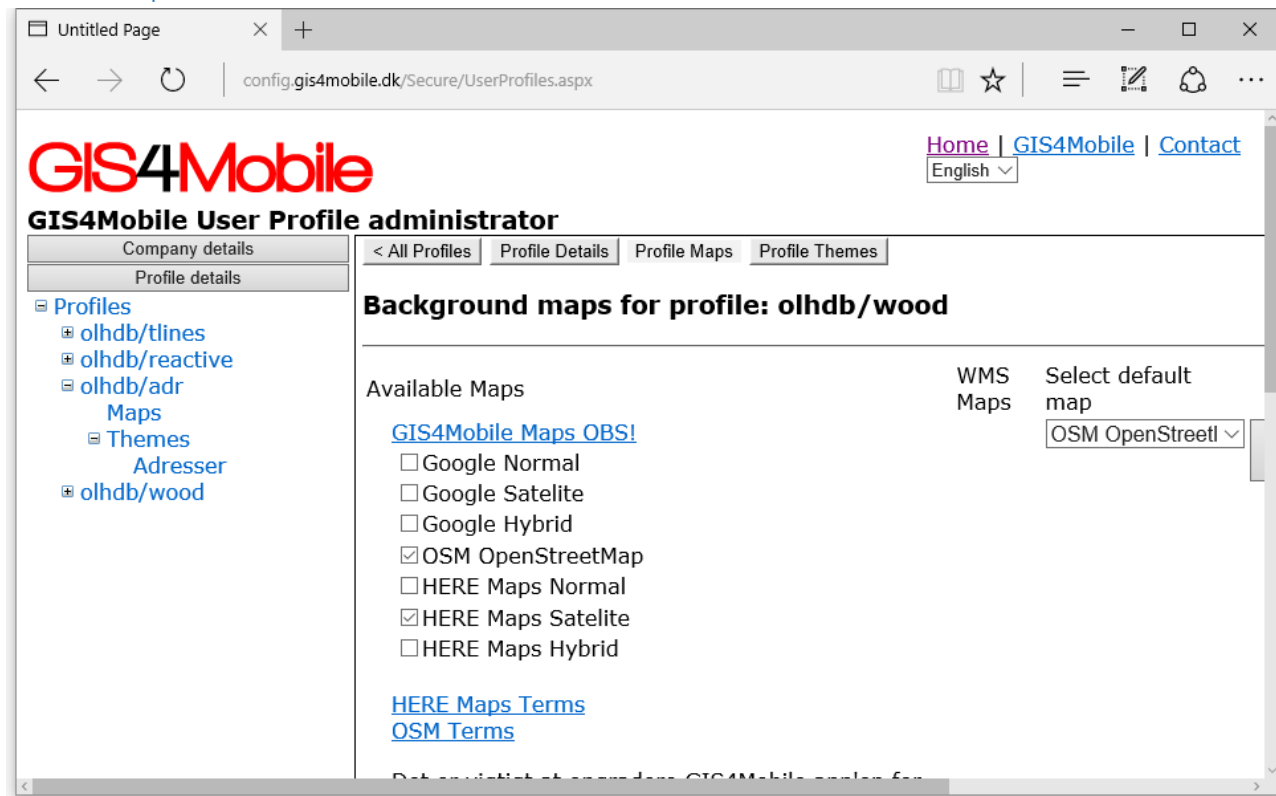
Once you select a profile in the tree you can see/edit the profile details:



Profile details defines general settings for the user profile.

Welcome message	Welcome message, Input the greeting/information the user will see when logging in the app.
Info-on.the-spot	Select if users have access to this function "info on the spot", thats looks up available information on any selected position, like address or even your customized information.
Max users	The maximum number of simultanoeous users allowed for the customers license agreement, and here can be selected how many users allowed to use this username. .
Used licenses	Number of used licenses/ different logins. When the maximum number is reached, it can be reset with the "reset licenses" button.
<b>Save</b>	The save button saves the selected values on this page.

## Profile Maps



The screenshot shows a web browser window with the URL `config.gis4mobile.dk/Secure/UserProfiles.aspx`. The page title is "GIS4Mobile User Profile administrator". The interface includes a navigation menu on the left with "Profiles" expanded to show "olhdb/wood" selected. The main content area is titled "Background maps for profile: olhdb/wood" and contains a table of available maps:

Available Maps	WMS Maps	Select default map
<a href="#">GIS4Mobile Maps OBS!</a>		OSM OpenStreetMap
<input type="checkbox"/> Google Normal		
<input type="checkbox"/> Google Satellite		
<input type="checkbox"/> Google Hybrid		
<input checked="" type="checkbox"/> OSM OpenStreetMap		
<input type="checkbox"/> HERE Maps Normal		
<input checked="" type="checkbox"/> HERE Maps Satellite		
<input type="checkbox"/> HERE Maps Hybrid		

Below the table are links for [HERE Maps Terms](#) and [OSM Terms](#). The "Select default map" dropdown is currently set to "OSM OpenStreetMap".

Different maps can be used with the user profile.

By default, everybody has access to Open Street Maps and HERE maps. Additional maps can be accessed via WMS, and is covered later in this manual.

One of the maps can be chosen as the default map, when logging in on the app.

## Profile Themes

The screenshot shows a web browser window with the URL `config.gis4mobile.dk/Secure/UserProfiles.aspx`. The page title is "GIS4Mobile User Profile administrator". The main content area is titled "Themes for profile: olhdb/wood".

On the left, there is a navigation menu with the following items:

- Company details
- Profile details
- Profiles
  - olhdb/tlines
  - olhdb/reactive
  - olhdb/adr
    - Maps
    - Themes
    - Addresser
  - olhdb/wood

The main content area has tabs for "< All Profiles", "Profile Details", "Profile Maps", and "Profile Themes". The "Profile Themes" tab is active.

The main content area is divided into two columns:

- Themes in profile:** A list box containing "Tavler" and "Spring". "Spring" is selected.
- Available themes:** A list box containing "Adr461", "hegn", "SA\_Reactive", "skov", "Spring", "T\_Lines\_mobile", and "Tavler".

Between the two columns are four arrows: a downward arrow, a leftward arrow, a rightward arrow, and an upward arrow.

Below the "Themes in profile" list box is a button labeled "View/edit theme".

Below the "Available themes" list box is a "List themes:" section with two radio buttons: "From current user" (selected) and "Database login:".

At the bottom, there is a "Select default theme:" label, a dropdown menu with "Spring" selected, and a "Save" button.

At the bottom left, there is a link labeled "GDBoxAdmin".

On this screen the themes or maplayers are selected.

On the right all available tables for this user profile is shown. Tables are created using <http://admin.gis4mobile.dk/>

The relevant themes are selected, and a default theme can be selected in the drop down box.

Click View/Edit theme button to edit the selected theme behaviour.

## Theme details

The screenshot shows a web browser window with the URL `config.gis4mobile.dk/Secure/UserProfiles.aspx`. The page title is "GIS4Mobile User Profile administrator". The main content area is titled "Theme details: Spring". The interface includes a sidebar with a tree view of profiles and themes, and a main panel with various configuration options for the selected theme.

**Theme details: Spring**

- Title on device:
- Geometry:
- Max zoom:
- Display by default
- User can update position
- Force GPS position
- User can edit attributes
- Allow user to delete POI
- User can add photo
- Number of photos:
- Print date on photo:

A "Save" button is located at the bottom right of the form.

On this screen the parameters for each theme is setup:

Titel on device	Title to be displayed in the app... can be different from themes original table name.
Geometry	Select the geometry type, point, line, polygon, according to setup of table in the Geobox admin interface.
Max zoom	In this field a limit to zoom leven can be set, to limit number of point, especially on smaller smartphones. On the app the actual zoom level can be read in the status line.
Display by default	Select if the theme is to be on or off when logging in. In the app the user can turn themes on and off.
User can update position	Select if user should be allowed to update existing positions.
User can edit attributes	Select if the user should be allowed to edit existing data.
Allow user to delete POI	Select if the user should be allowed to delete existing data.
User can add photo	Select thow to allow user to add photos.
Number of photos	Select number of photos allowed.
Print date on photo	Select if date/time should be printet on every photo.

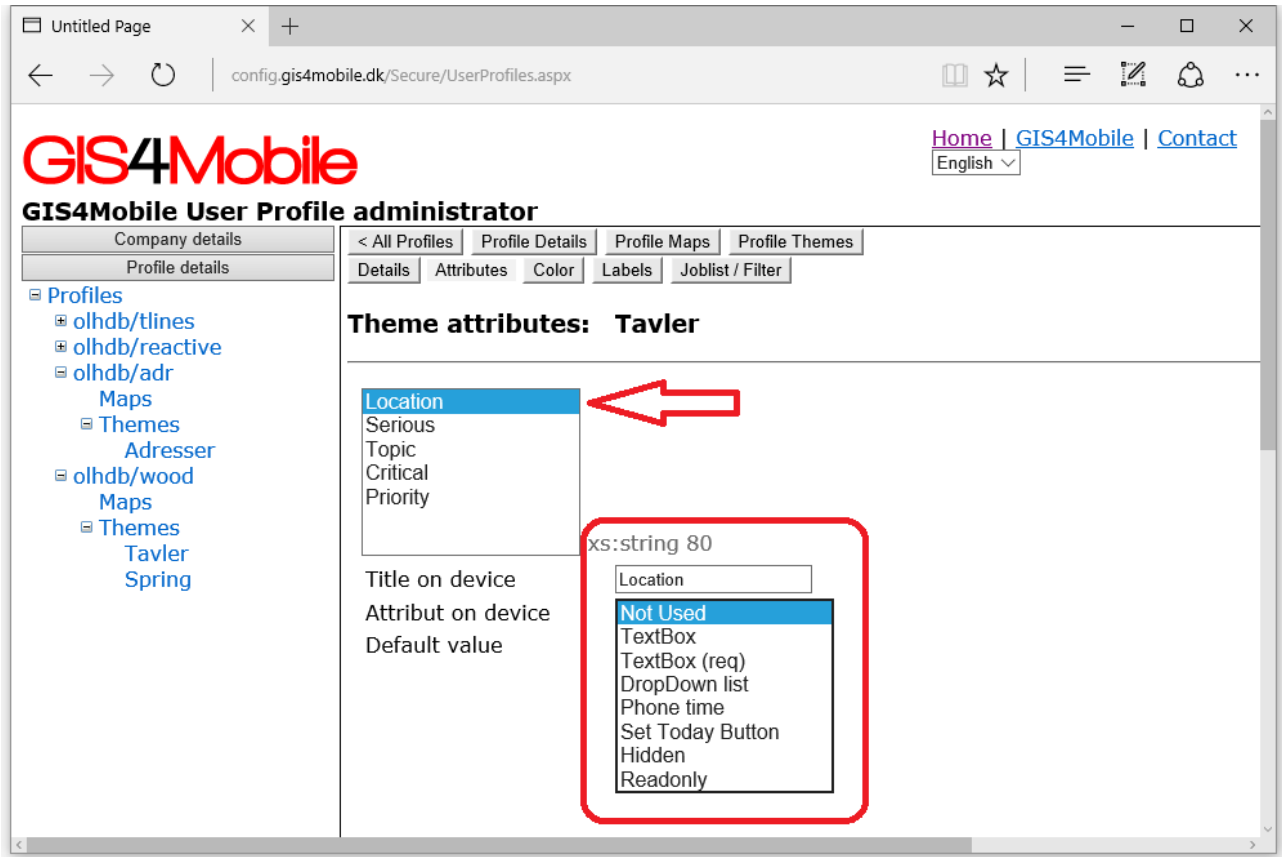


## Theme attributes

The screenshot shows a web browser window with the URL `config.gis4mobile.dk/Secure/UserProfiles.aspx`. The page title is "GIS4Mobile User Profile administrator". The main content area is titled "Theme attributes: Tavler". A red circle highlights a dropdown menu with the following options: "Location", "Serious", "Topic", "Critical", and "Priority". Below this menu, there are three fields: "Title on device" with a text input containing "Location", "Attribut on device" with a dropdown menu containing "Not Used", and "Default value" which is empty. A "Save" button is located at the bottom right of the form. On the left side, a navigation tree shows "Profiles" expanded, with "Tavler" selected under "Themes". A red arrow points to "Tavler" in the tree.

The Attributes screen lists the available fields for this theme.

Each attribute can be configured to display or edit in various ways.



The different control types are:

Not Used	The field is not shown on the app.	
TextBox	Textbox to enter text. If the field is type=Integer only numbers can be input - If the field type=Date, a date option is shown.	
TextBox (req)	Textbox with required input.	
Dropdown list	Present a list of values. It is possible to present a text different from the value recorded. You can make 2 connected dropdowns by setting a <b>title</b> with a "/" – like "type/subtype" – and the every text in the dropbox should have a "/". More detailed explanation later.	
Phone time	The fields is updated with the time from the phones internal clock.	
Set Today Button	When button is activated, todays date/time is recorded.	

Hidden	Field is not presented to user, but can be used to record a fixed value.	
Readonly	Data is shown in the app, but cannot be edited by the user.	

## Control types in detail

The control types are described in more detail here.

Please note the the look is different on different platforms, and may change from version to version of the GIS4Mobile App.

## TextBox

The screenshot shows the configuration interface for a TextBox control. On the left, a list of field names is displayed: OpgaveType, Prioritet, TilsynDato, TilsynInterval, and Godkendt. The 'Prioritet' field is selected. To the right of the list, the data type is set to 'xs:string'. Below the list, there are three configuration fields: 'Title on device' is set to 'Prioritet', 'Attribut on device' is set to 'TextBox', and 'Default value' is set to 'melleml'. A 'Save' button is located at the bottom right of the configuration area.

A tTextBox is a field where the user can input data.

The screenshot shows a mobile app interface with a label 'JobText' on the left and a large, empty text input field on the right.

This is how a TextBox looks in the app.

If the type is set to datetime , the field looks like this:

# GIS4Mobile

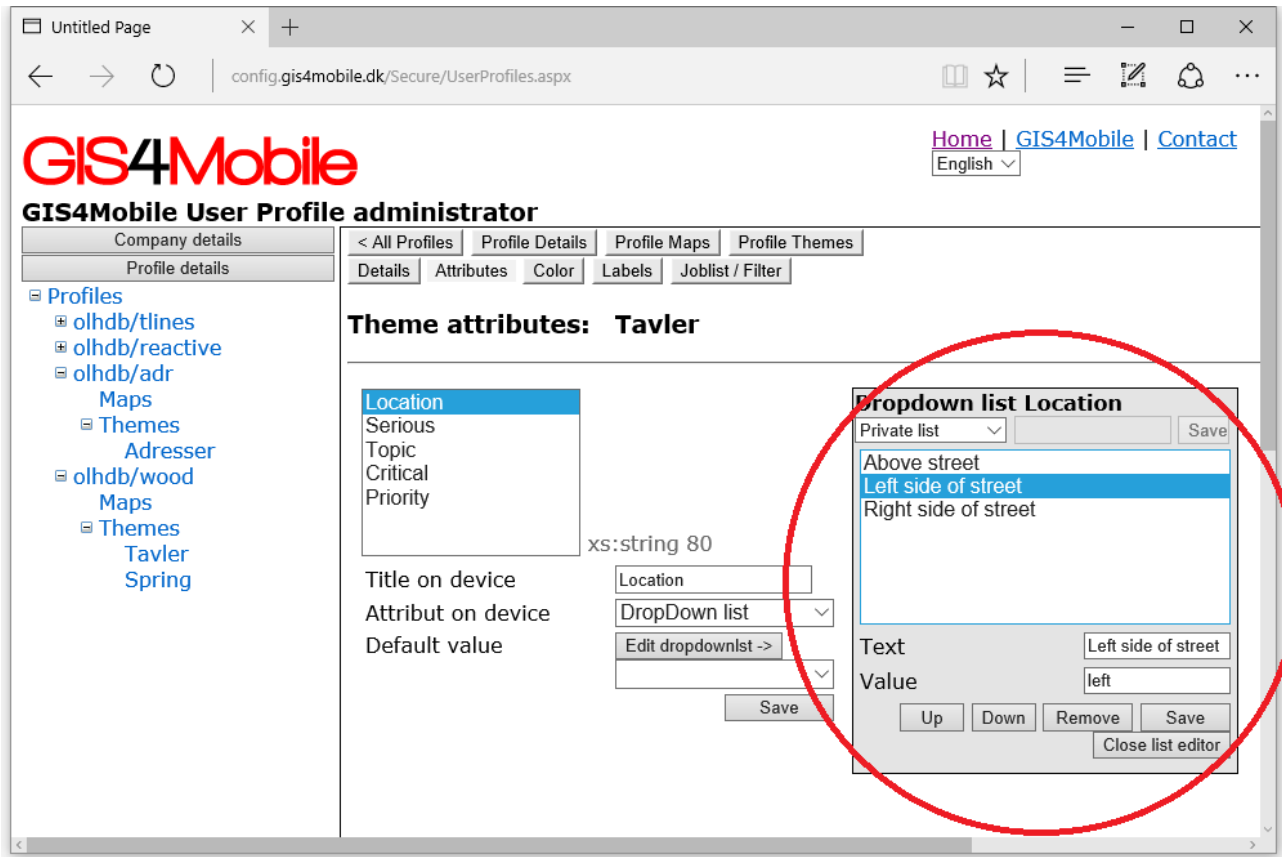
InspectDate

2014-09-27

September 2014

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

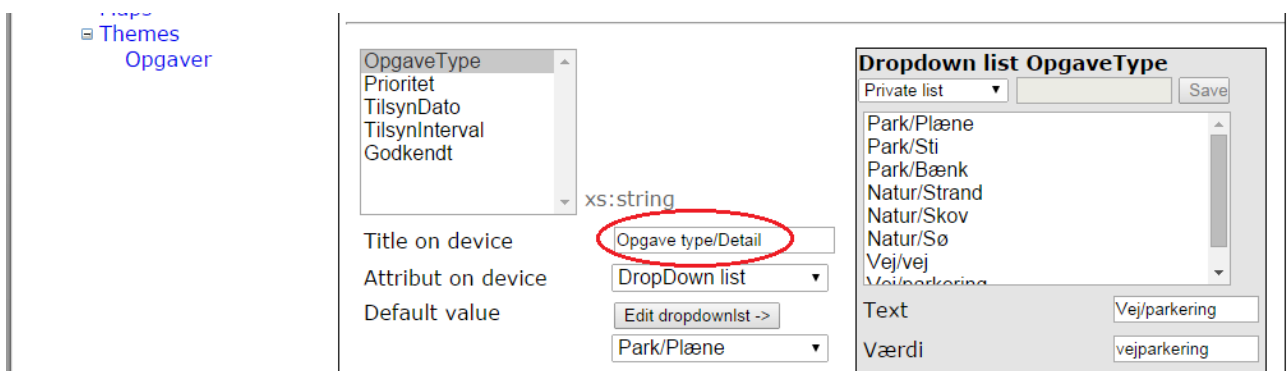
## Dropdown



The Dropdown list can have a text that is displayed, and a different value that is recorded.

If the dropdown list is setup with integer field, all values must be numeric, and there should be set a default value.

If the list is made with Type/Undertype dropdown it looks like this:





First select type ...



And then undertype.

A Dropdown list can be stored with a name, making it reusable in other profiles.

This is done here:



Select {new list}, enter a name, press save.

<input type="text" value="OpgaveType"/>	
<input type="text" value="Prioritet"/>	
<input type="text" value="TilsynDato"/>	
<input type="text" value="TilsynInterval"/>	
<input type="text" value="Godkendt"/>	
	xs:dateTime
Title on device	<input type="text" value="Tilset dato:"/>
Attribut on device	<input type="text" value="Set Today Button"/>
Default value	

Look at the field of type dateTime.

One way is to use PhoneTime – records the time from the units clock automatically:

Tilset dato:	<input type="text" value="2014-09-10T17:39:18"/>
--------------	--

Another is to use type "Set Today Button" that looks like this:

Tilset dato:	<input type="text" value="2014-09-10T17:37:11"/>	<input type="button" value="Dags dato"/>
--------------	--	--

This records the date and time, only when the user clicks the button "Dags dato".



## Theme colors

Here it is defined how objects are represented on the Apps map, regarding to color.

Private list Save

---

**Select Attrib**    **Value**

Priority

Color     Color picker

Save row

	Attribut	Value	Color
<a href="#">Delete</a> <a href="#">Select</a>	Priority	1	255,0,0
<a href="#">Delete</a> <a href="#">Select</a>	Priority	2	255,204,0
<a href="#">Delete</a> <a href="#">Select</a>	Priority	3	0,204,0

It is possible to set a default color, or relate the color to the attribute value.

Above the attribute Priority is selected.

The setup reads the dropdown values to make it easy to complete the config.

After choosing the Attribute, select the value and corresponding color, and click "Save row"

## Name the list

It is possible to give this symbology list a name, making it reusable in other profiles. This is done here:

{New list} Priority x Save

Select new list, enter a name, press save.

## Color by service interval

Symbology can be defines by service intervals.

This is used where you want the color to change when service is due. It is done by adding a service-interval (number of days) to the time of last service. This compares to current date, and results in either underdue, due or overdue,

You set it up like this:

Priority  Save

---

**Select Attrib**      **Value**

LastService       after       ServiceInterval

Color

Save row

	Attribut	Value	Color
<a href="#">Delete</a> <a href="#">Select</a>	LastService	before[ServiceInterval]	0,255,0
<a href="#">Delete</a> <a href="#">Select</a>	LastService	equal[ServiceInterval]	204,255,0
<a href="#">Delete</a> <a href="#">Select</a>	LastService	after[ServiceInterval]	255,0,0

This is normally used if LastService is set by the user when service is completed. For this use the “Today button” is useful.

The ServiceInterval can either be hidden or readonly, if the user does not have to change it, or it can be set by a textbox, or dropdown. If you make a dropdown it is useful to let the user select texts like “1 week” or “2 weeks” – but you must make sure the value recorded is number of days.

## Labels

### GIS4Mobile User Profile administrator

Company details	< All Profiles	Profilens detaljer	Profilens kort	Profilens temaer	
Profilens detaljer	Temaets detaljer	Temaets attributter	Temaets farver	Labels	Task List / Filter

**Theme labels: Opgaver**

Select attribute to display

Max zoom for labels

Select which attribute to show with labels, and a zoom level. The labels are shown on the app when the zoom level is reached.



## SQL Filter

The SQL filter can be setup to limit the object shown to the user profile.

This is useful if the same dataset has different users, employes, citizens, supervisor etc, and the data can be sorted to different team for follow up.

Temaets detaljer   Temaets attributter   Temaets farver   Labels   Task List / Filter

### Setup filter and listview Opgaver

Definer SQL-filter for hvilke data der vises på mobil.

OpgaveType ▾ IN ▾ natursoe ▾ Add to SQL

```
[OPGAVETYPE] IN('naturstrand','naturskov','natursoe')
```

Slet SQL-Filter   Gem SQL Filter

The figure shows a filter limiting the viewing of the three selected "opgavetyper"

The function is mainly usefull in combination with the **listview option** where a list of task for the individual user can be presented in a list next to the map:



## Liste / opgaveliste

### Definer list-view, der kan max vises 100.

Define listbox

Prioritet ▾

Listbox line 1 [OpgaveType] Add

Listbox line 2 [Prioritet] Add

Listbox line 3 Add

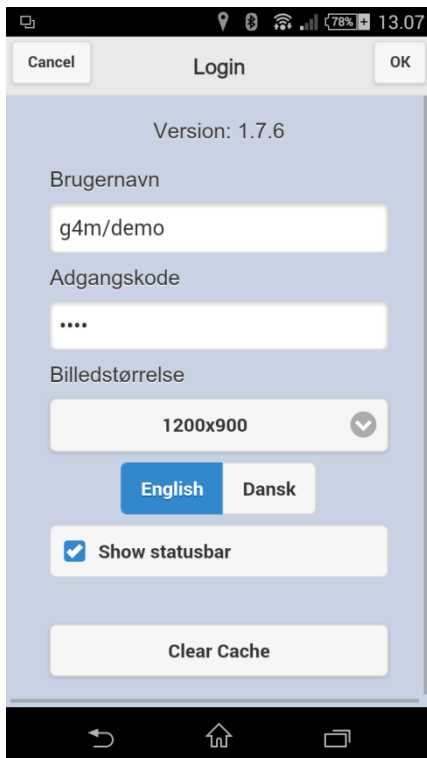
Gem listview definition



## GIS4Mobile App manual

The App is installed from Apple Store or Google Play, and is called up like any other App.

At the login the defined username and password is put in, the administrator will setup these usernames in the administrator module



The App records the username and password, so it is normally only necessary to type it at first login.

Image Size: Choose the picture resolution, and be aware that the bigger the resolution, the higher amount of data is transmitted, and could lead to higher cost for data transmission.

English/Dansk gives the option to select english og danish as language.

Clear Cache: To erase all data from the cache memory, map tiles etc.

After selctions are made, click OK in the top right corner.

# GIS4Mobile

After Login:



On the main screen there are different ways to navigate:

- Zoom with two fingers or the zoom button top right.
- Pan the map with one finger
- Click the blue pin, and the registration menu is called.

Icons:



**Sync:** The App synchronizes every 2 minutes, if faster sync is needed, push this icon.



**GPS:** Pans to the GPS coordinates, if the GPS is off, the app gives an error message.

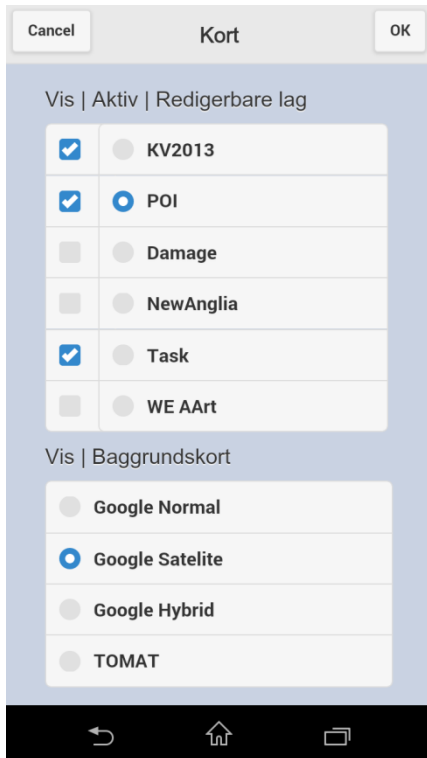


## Map menu

The icon calls the menu where the actual maps and themes can be overviewed and selected.

The upper part of the screen is the actual themes for this user profiles, and can be turned on and off, and one theme can be selected for editing.

The lower part is the available background maps, and only one can be selected.



All users normally will have access to Google maps, and there can be setup extra maps via WMS. Press OK top right to go to main screen.

# GIS4Mobile



## Register new point

This icon opens up the predefined menu for each theme, and a new point can be registered with the attributes listed.

Photos can be added with "Add Photo" that call up the unit's internal camera.

More than one photo can be added, depending on the user profile setup.

Cancel g4m/demo | W... OK Gem

GPS position

Map Center

Artist

Visitor

Name?

Tag foto

+



## Settings

The settings menu can have the following, some of them might not be available to the actual user profile because the administrator has disabled them.

**Settings:** Log in and clear cache

**Click for info:** Allow user to select any point in the map, and after that displays available information.

**Tracklocation:** This will make sure the current GPS is always within the visible area.

**Cache:** Opens a window to let you manage the map-cache on the phone.