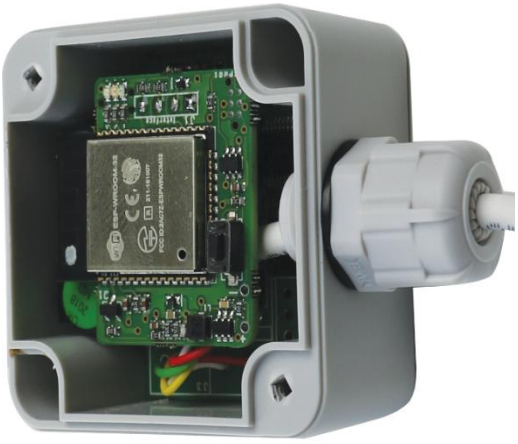
ASC Global
INTERNATIONAL

WiFi/BT Controller



INSTALLATION AND USER'S GUIDE

Content

Device description and function

We have designed the WIFI/BT Controller to manage eletric gates and barriers. However, it is capable of controlling other devices too, which input is compatible with the output configuration of the WIFI/BT Controller.

The operating parameters of the module can be set with the WiFi/BT Manager mobile application. After performing the appropriate configuration, the device can be controlled via WIFI and Bluetooth as well.

The application allows:

- Setting the parameters of the module (changing the WiFi access, server acess, PIN code),
- Creating control icon on the smartphone
- Reaching service function (operating state, counters, Wifi signal level).

It is possible to determine the connection type of the control while creating a control icon (Bluetooth or Web). Moreover, the software allows setting the monostable control time. The icon launches the application and connects to the controller according to the previously set settings and manages its output. If the output activation is successful, a pop-up window will appear. If the activation fails, a dialog box will open. In case of internet connection, the server sends a push message to the module.

Beside of handling the control permissions, the given email/password for server access allows logging-in and handling the user data on the manufacturer's web interface http://www.gsm0.eu.

On the web interface the following functions are available:

- Creating new internet users
- Modifying users' data
- Deleting users
- Creating a desktop icon for controlling on PC
- Querying service data (settings, eventlog, Wifi signal level, counters)

The module is designed for controlling via internet. Hence, it can manage up to 15 bluetooth connections. The number of internet users are unlimited.

Main features

- Control eletric gates, barriers and other devices
- Unlimited number of internet users
- User permissions
- Individual monostable control time to every user
- Programming via bluetooth
- Querying via bluetooth or internet
- Control counter

Technical data

- Communication channels: WiFi/ Bluetooth
- Operating temperature: -20 ºC – +70 ºC
- Power Supply: 9-35 VDC, 24 VAC
- Power consumption (maximum): 200 mA @ 12 VDC
- Power consumption (standby): 70 mA @ 12 VDC
- Relay output maximum load: 30VAC 0,5A
- Dimensions: 50x70x37 mm
- Weigth: 60 g

Installation guide

The wiring diagram can be found in the inside of the cover of the top cover of the module. The module works with 9-35 VDC and 24 VAC. For stable operating 1A power supply is necessary. The load of the potential free relay output is 30VAC 500mA.

Wiring

Red	Power Source
White	
Yellow	Output (NO)
Green	

If DC power supply is provided the polarity of the wiring is independent.

Beside of the electrical control, the installer must ensure the possibility of mechanical opening as well.

Indications, Functions

Push button:

- Short push - restarting the module
- Long push – deleting the settings (PIN code, bluetooth connections, WiFi connection)

LEDs:

Blue - Bluetooth connection/operation

Green - WIFI connection/operation

Red - Push server connection/operation

When powering on the device the blue, green and red LEDs blink together, then the LEDs blink in a row one after another. If the WIFI is not configurated, the LEDs blink 4 times together in a row then only the blue LED blinks. If the blue LED blinks the module is available via bluetooth for 10 minutes. After the 10 minutes expired, only the paired devices have access to the module.

The pairing and configuration of the WIFI settings have to be done in this 10 minutes.

After configuration, the module restarts automatically and it tries to connect to the set WIFI network.

The controller makes 20 attempts to connect to the set network. If it is sucessfull, the green LED lights. Afterwards, the push system connects that is indicated by the red LED. Eventually, the bluetoth will be turned on hat is indicated by the blinking blue LED. After 10 minutes all LEDs are switched off. The LEDs will work only during the communication. The blue LED will light constantly in case of bluetooth connection.

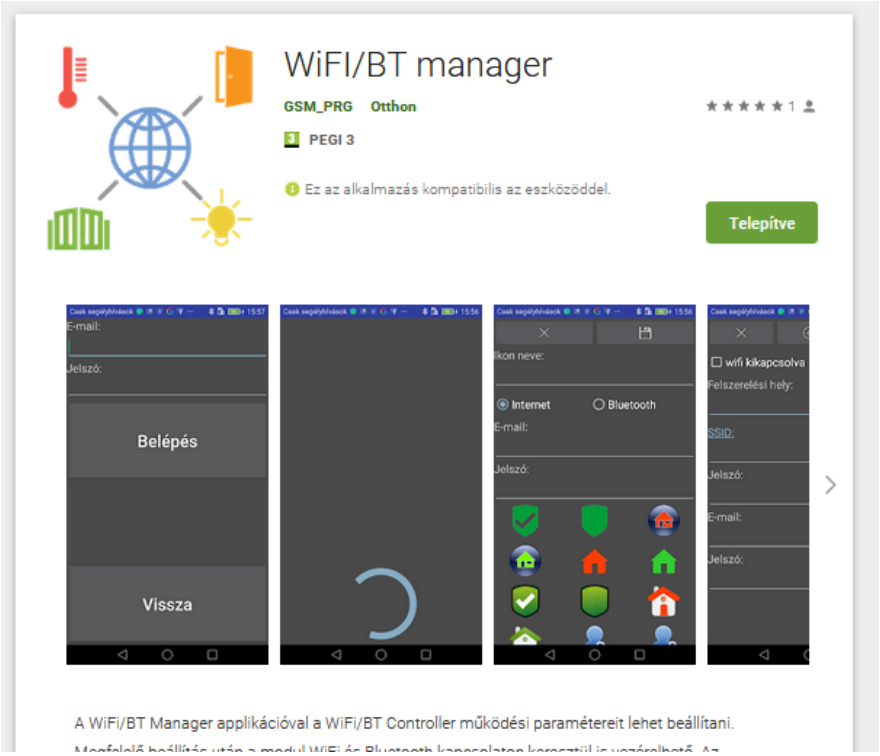
If the connection to the WIFI fails, the module will restart. Therefore, there is a possibility to change the settings.

Android application

The WiFi/BT Manager application allows configurating the control device as well as creating the icon that is necessary for the control. The output activation can happen via internet (Wifi, mobile internet), or via bluetooth. For control, the program creates a unique icon. The application helps setting the parameters of the icon.

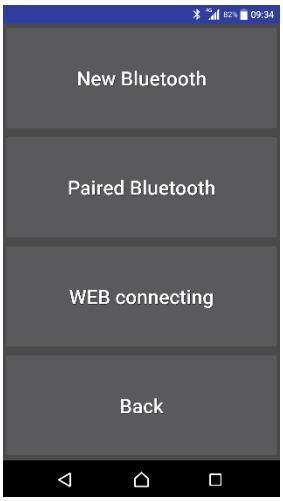
The software requires permission to use the storage of the cell to be able to download the user's guide. Also, the location permission is required for bluetooth usage (from Android 6.0).

You can download the WiFi BT Manager application in the play store by searching for with the GSM_prog key word. The Icon of the application looks like this: 



Connecting to the module

After launching the program, we have to chose the module that we would like to set or control. There are 3 possibilities to choose.



1. New bluetooth

2. Paired bluetooth

3. Web connection

After choosing one of the options, a list of modules will appear where we can choose the right module. Afterwards, we have the possibility to:

- set the internet access
- modify the settings
- create the control icon to activate the output
- reach the service function

New Bluetooth

By choosing this option, the phone begin to search for the reachable WiFi devices and it shows a list about the WiFi modules that have not paired with the phone. By tapping on the certain device, the pairing can be done. By default the PIN code of the module is 1234. It can be changed later on.

By clicking on the progress bar, the searching stops during the process.

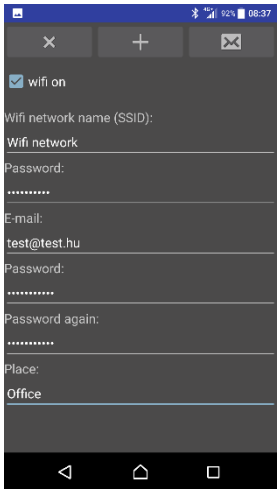
Paired Bluetooth

In this menu, the module makes a list about the control devices which are already paired. The module that we would like to configurate can be opted for from this list.

Web connection

By giving the appropriate email/password (a previously registrated email adress), the controller makes a list about the modules that has web connection. If only one controller belongs to the email adress, the icon creating page appears directly. Here, only an internet remote control icon can be created.

Configurating the module



The configuration of the module is necessary if we would like to control via internet. For remote control, we have to give the name of the WIFI network (SSID), password and an email/password to access the data base. The place of installation helps to select the device in the web connection list. What's more, this is the default name when creating an icon. By the assigning if the ***wifi turning on*** field, the phone queries the available Wifi networks and signal levels. Afterwards, the wifi network can be chosen from a list of available networks. Then, the necessary data has to be filled out. For launching a new search, the field has to be reassigned.

Wifi Network Name SSID: name of the wifi network.

Password: the password of the chosen wifi network.

Email: user email adress.

Password: password for the email adress.

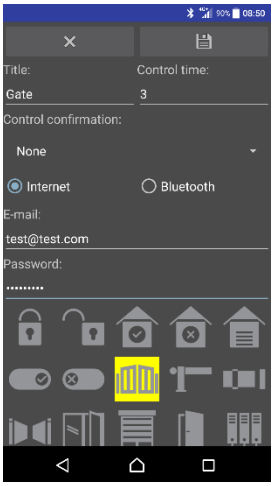
After filling out the data, the settings have to be sent by tapping the button. With the button it is possible to reach the page where we can can create an icon. The button steps back one page or closes the application by a long push.

Creating a control icon

To create an icon, the name, control time and connection type of the icon has to be given. In addition, the software allows us to add a confirmation request for the control in two ways:

- **Double click:** it requires the user to tap twice to be able to control.
- **Password:** it requires the user to type a password to be able to control.

In case of internet connection, the user email/password that can be given at the installation or on the server.



After giving the data, the picture of the icon has to be opted for and clicking on the button that creates the icon on the first free place on the display. The place of the icon can be changed manually. With a long click on the the program can be closed.

Security settings

In this menu, the bluetooth pairing code and the Wifi network settings can be modified.

If the bluetooth PIN code is changed, the existing bluetooth connections will be deleted. All bluetooth connections will require the new PIN code. By clicking on the Wifi search, the phone queryes the available Wifi networks and signal levels.

By giving the necessary data, the modofications can be sent to the module with the button.

The module restarts in both cases. The button steps back a page or by pushing it long, the application can be closed.

Service

When choosing this function, the application tries to connect to the module via bluetooth connection.

In case of successfull connection, the module states and settings will be visible. To be able to reach all functions it is necessary to swipe at the top of the screen.

States:

Wifi: it shows whether the Wifi option is switched on

Wifi connect: it shows whether the module is connected to the Wifi network

Server connect: it shows whether the module is connected to the server

Push ready: it shows whether the module is connected to the push server

WiFi set good: it shows whether the currently used Wifi setting works or not

While using bluetooth, the Wifi connection is broken. Therefore, the different status information shows valid data at the begginning of the bluetooth connection.

By clicking on the  button, different functions appear including working hours, relay counter, and other counters. The Web interface allows handling the counters.

By clicking on the  button,the operation counters appears.

modul start; modul restart – laucnhing with push button

wifi connect, push connect, bluetoth connect

push command, bluetooth command, server command – if there is no push

wifi disconnect, push disconnect, bluetooth connect

By clicking on the  button, the module configuration and statuses become visible.

- **TEST** – output control
- **RSSI** – current signal level (it is a negative number) if the Wifi signal lost it is empty
- **SSID** – available Wifi networks
- **VISIBILITY ON/OFF** - Turning on/off the bluetooth visibility to connect the module to a new phone.
- **RESTART**: restarting the module
- **WIFI ON/OFF** – turning on/off Wifi

The  button steps back a page or by pushing it long, the application can be closed.

Control via internet

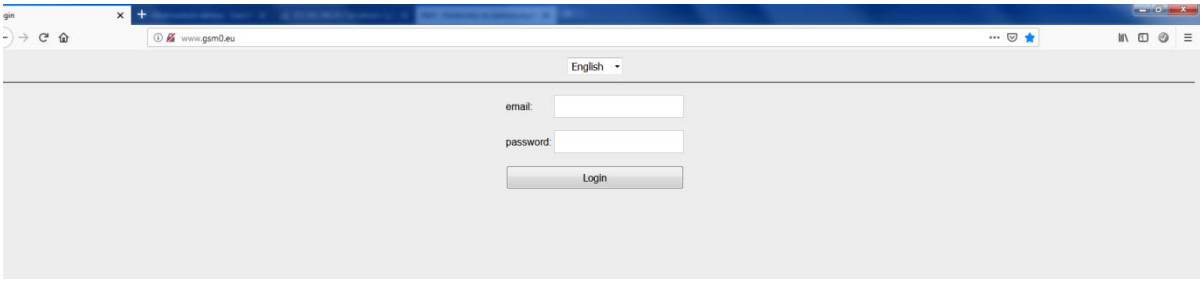
If there is internet connection, by clicking on the control icon (it can be mobile internet or Wifi), the phone will connect to the server, which sends the command to the controller. The phone indicates the command sending. If it is succesfull, we will get the ***command executed*** message. If we got the ***command stored*** message, the controller cannot be reached by push message. Therefore, it receives the command in one minute approximately. If we got the ***module is not available*** message, the controller lost the Wifi network.

Control via bluetooth

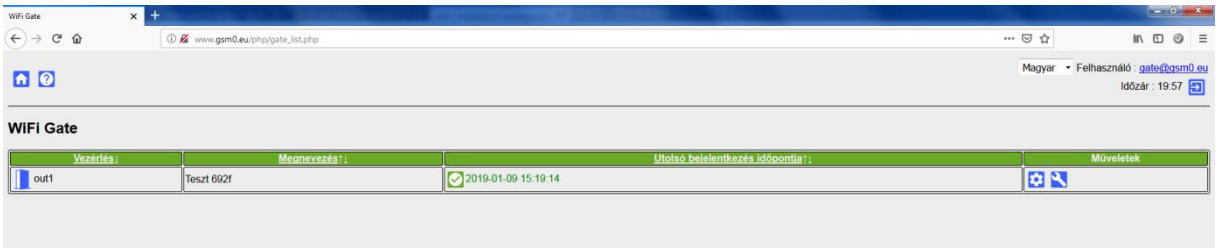
By clicking on the control icon, the bluetooth turns on. If the mobile phone is inside the range of the bluetooth, it connects to the module, and the command will be executed. If the control is succesfull, we got the command executed message.

WEB application description

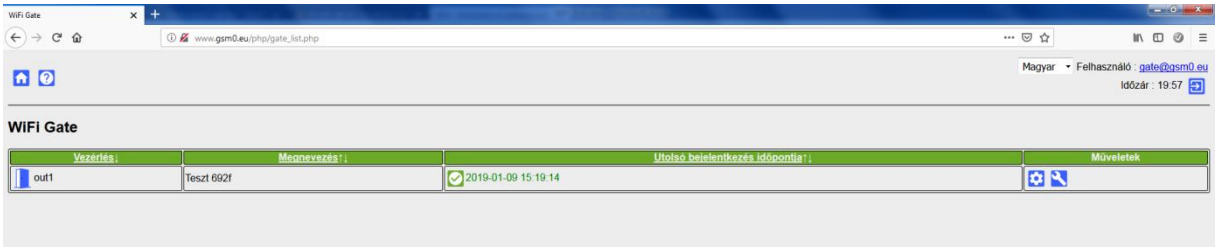
The web interface related to the WiFi/BT Controller is available on the www.gsm0.eu website. To log-in the web interface an email/password is necessary that was needed to be given in the WiFi/BT Manager.



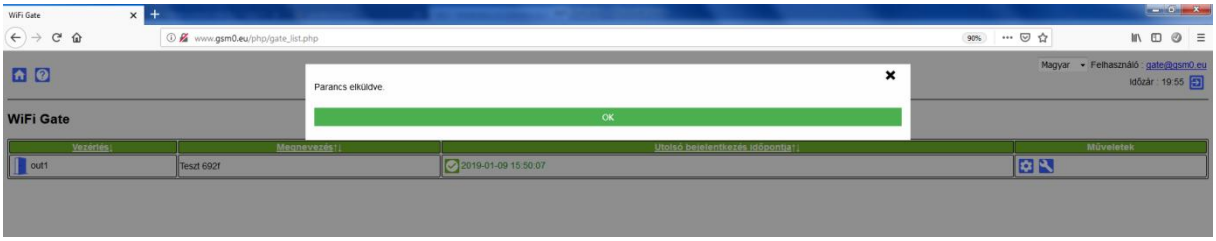
After logging-in, a list appears with the modules with some basic data depending on the permission the user has. The language of the website can be changed in the drop-down menu. The language can be changed even after logging into the website.



After logging-in, a list appears with the modules with some basic data depending on the permission the user has. By clicking on the icon we can return to this page. The icon allows opening the help. The icon allows us to sign out of the web interface. The system makes us signed out after 20 minutes of inactivity.



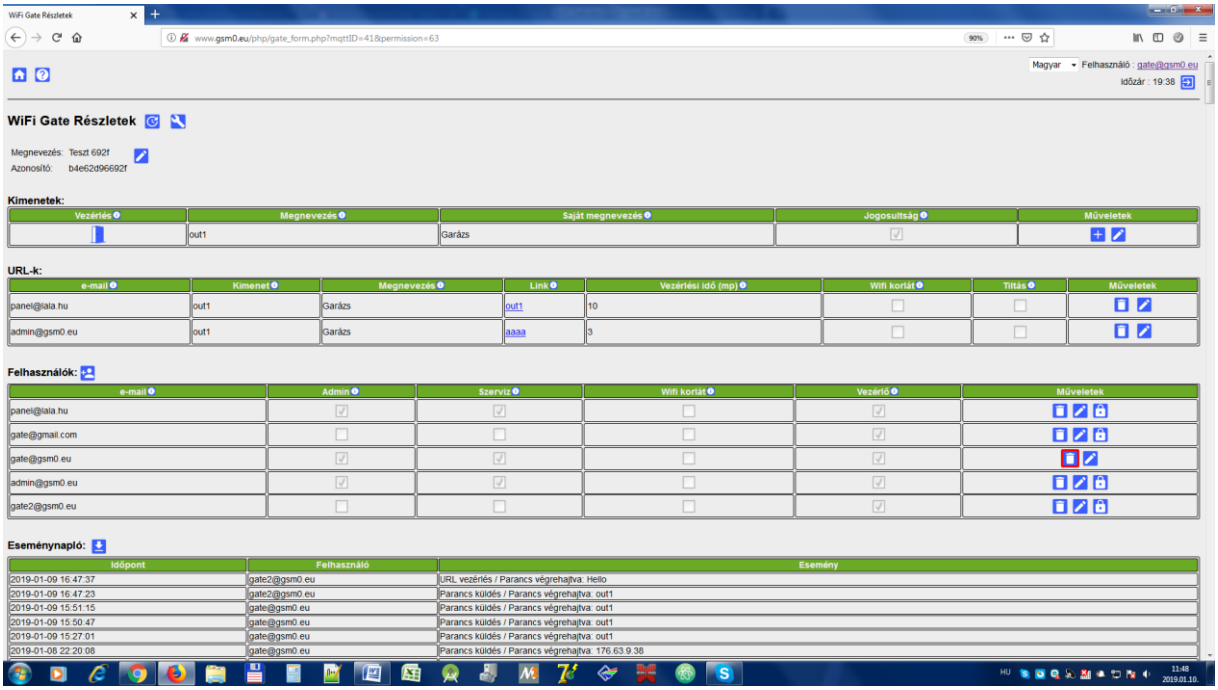
The module can be managed with the icon. While controlling a window pops-up that informs us concerning the command sending.



The system begins check if an answer came from the module after 1 seconds regarding whether the output control was successful. If so, the ***Command executed*** message appears, if not ***the Command was not executed*** can be seen.

The settings in the module are available by clicking on the icon. The service functions are available with the icon.

On the page below, several data of the module are changeable such as the module name or output name. In addition, it is possible to create or edit shortcuts and users.

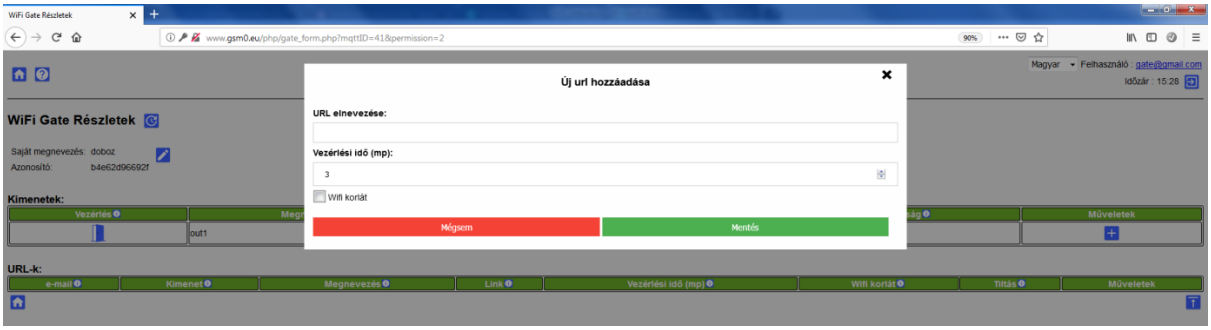


The name of the module is the same as here what we give as **place** in the gate manager app. With admin permission this name can be changed with the icon. If not, we can give an own title. Hence, the installer and the users can identify the module with different names.

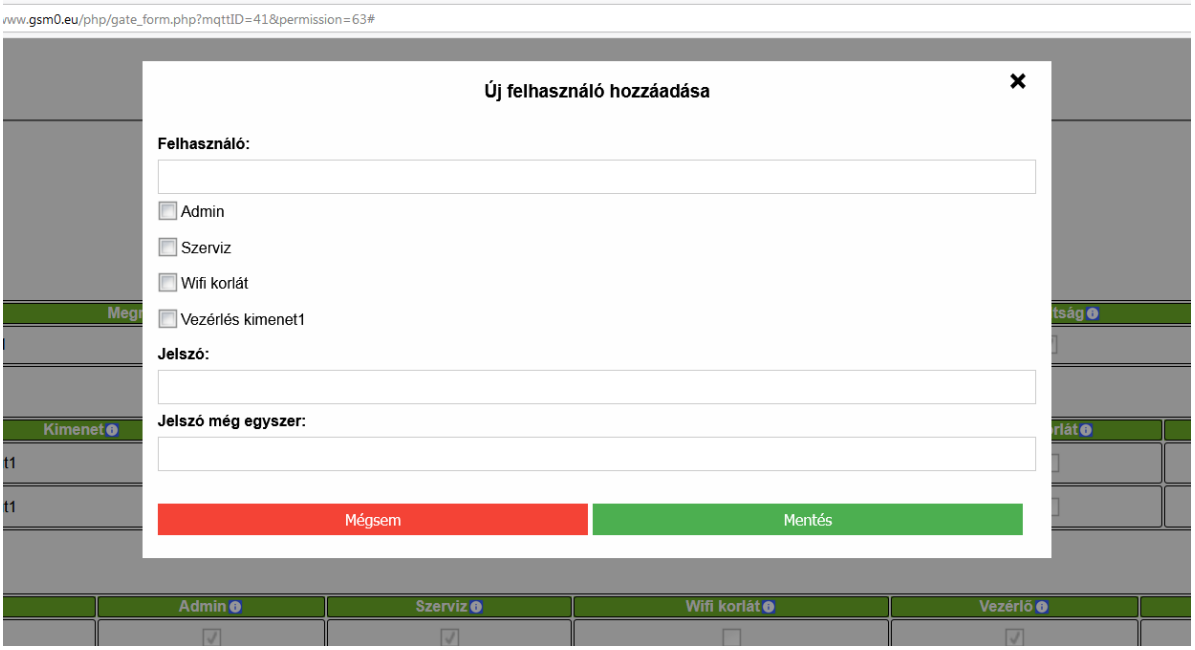
In the outputs list we can change the ***own title*** of the output with the Icon. The URLs list contains the characteristics of the desktop icons. This modification can be done only by users who have admin permission.

With the icon we can create a new ***URL***. In the pop-up form, several data have to be given including the name of the URL – it appears below the icon-, the control time, the ***own network*** monitoring, that allows controlling the module by devices that are connected on the same IP network that the module is connected to.

By pulling the link field onto the desktop (PC), we can create a desktop icon. If it did not work, the desktop icon can be created by copying the url from the new page that can be opened by clicking on the control link.



If we have admin permission, the list of users appear and we can create a new user. By clicking on the icon, the user is created after giving the necessary data. The email/password can be used in the WiFi BT Manager mobile application in the ***Select module – Web connecting menu***. Hence, a control icon can be created with limited permission.



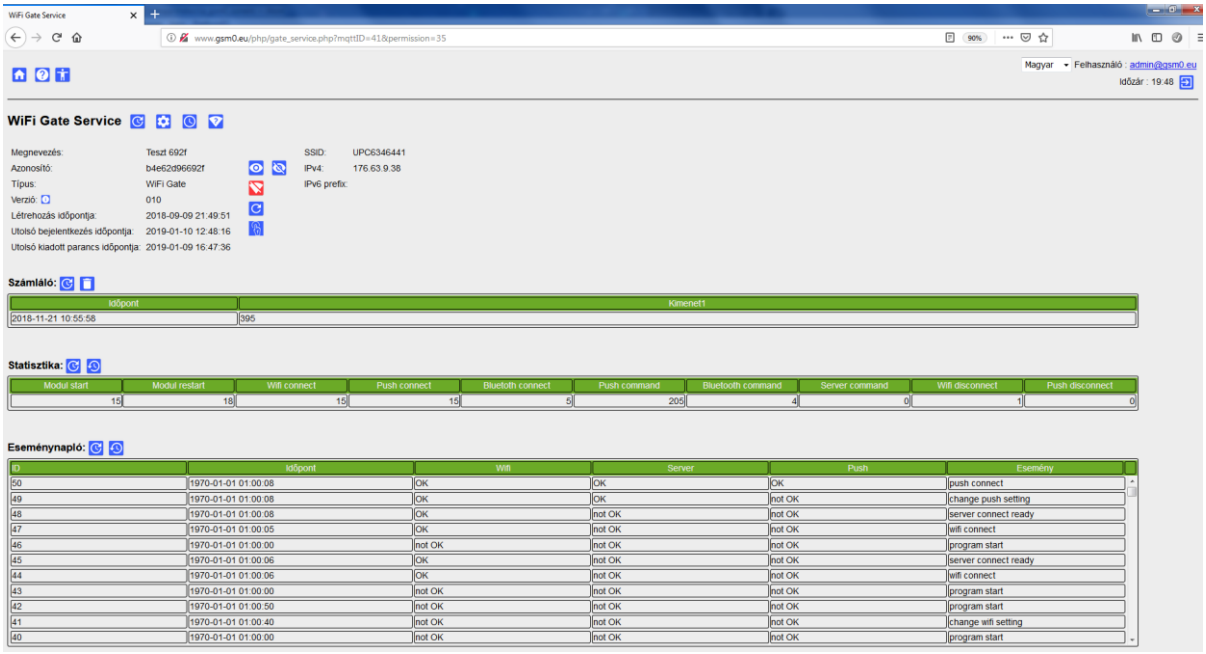
In the list, the permission can be changed with the icon, and the password can be changed with the icon. The users can be deleted with the icon. The icon indicates the actual user. Hence, it pays the user's attention not to delete itself.

The list at the bottom of the page is the eventlog, which can be downloaded in CSV format with the icon.

The interpretation of the columns of the eventlog:

Date	The date of control
User	The username related to the control
Eventlog: Command sent / Command was executed: out1	Successful output control from the web-interface
Command sent / Command was executed: 176.63.9.38	Successful output control from the 176.63.9.38 IP adress
Command was sent / Command was not executed: 188.143.51.207	Unsuccessful output control from the 188.143.51.207IP adress
URL control / Command was executed: out1	Successful output control with the Out 1 URL

With the icon the service interface is availabe , if the user has a permission to reach the service interface. Here, unique commands can be sent to the module. Moreover, different data is shown here in regard to the operating of the module.



Meaning of the icons:

reloading of the page
module settings
querying the operating hours of the module
querying current Wifi signal level
Switching on/off the visibility of the bluetooth
Switching off Wifi - it can be used when we want to disable the internet access of the module
Restarting the module
Controlling of the first output
querying the counters
deletion of the counter data from the server
querying statistics
deletion of statistics data from the module memory
querying eventlog
deletion of the eventlog data from module memory
querying Wifi network signal data
Wifi network signal data from module memory

Privacy policy

Handling the given data in the application.

The users can use the system with an email adress and password. Howbeit, it is necessary for operating the system. The contribution of the users to data handling, by giving their personal data directly or indirectly voluntarily, is considered to be given. The purpose of data handling is to ensure access to the system, and providing permission to use the system to the users who wish to use the system.

The only readable information that is stored by the system is the email adress. The password and the place of installing is encrypted on the manufacturer's server. In the module memory, only the place of installing stored as private data.

The private data are not accessible by third party, only by the installer and manufacturer who handle the private data confidentally according to the relevant legislation. In addition, they cannot share it with third party.

Responsibility of the manufacturer

The manufacturer takes responsability regarding the operating and usage of the system - including the intended use of the hardwer and software –according to the relevant legislations.

The manufactuer does not take responsability for damages that caused because :

- The user lost the control device, or the control device or the private data is stolen by which an unauthorized person is capable of accessing the system.
- the user chose an easy or easily hackable password
- The user gives the data - that necessary to use the system - on purpose in direct or indirect way, or the control device to third party