GANZ IP

GANZ Smart Terminal
Client
User Manual

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1. First Steps

Basic Information

- ✓ The application is only used to display on-line measurement information.
- ✓ The application uses MQTT protocol and requires connection to any MQTT broker (MQTT Server).
- ✓ The examples of connection setup introduced in this manual are based on the MQTT broker installed on the local network for MS WIN10 x64 operating system.
- ✓ The MQTT Broker used in the examples is **Eclipse Mosquitto ™** - **an open source MQTT broker**, available at: https://mosquitto.org/
- ✓ Broker application does not require installation on the client computer.
- ✓ The application does not store any personal information and measurement results.
- ✓ The application can be connected only to one Broker at the same time.
- ✓ The application can support an unlimited number of terminals, it depends only on the Broker used.
- ✓ Application stores passwords for the broker in secured method.

2. Eclipse Mosquitto ™ - Test Environment Installation

Please go to the https://mosquitto.org/download/ webside and download installation package for your operating system.

Run downloaded installation package e.g. **mosquitto-1.6.10a-install-windows-x32.exe** and install it in accordance to all recomendations.

After installation, open destination directory e.g. **C:\Program Files\mosquitto** and edit file **mosquitto.conf**, please delete all contents and paste only that three lines below:
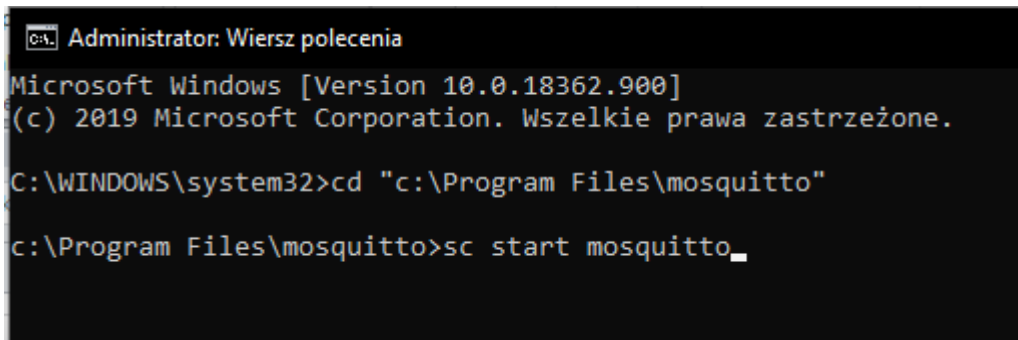
```
allow_anonymous      false
password_file C:\Program Files\mosquitto\pwfile
listener             1883
```

Save this file and open cmd line tool with Administrator rights, in cmd line go to installation folder writing:

```
cd "c:\Program Files\mosquitto"
```

Next, run the service with command below:
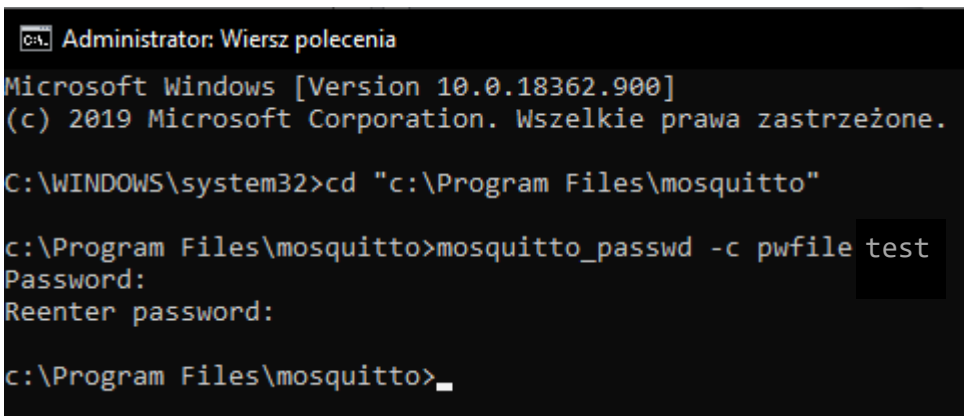
```
sc start mosquitto
```


Last step is to add new user that can communicate with newly installed MQTT Broker. This user name will be „test" with same password „test". In order to add new user, type in the following in the same command line tool:

```
mosquitto_passwd -c pwfile test
```


When it prompts, please enter new password e.g. „test". Done! Installation and configuration is completed, you have correctly running MQTT Broker for testing application in local network.

3. Device GANZ Smart Terminal – MQTT Settings

Now, let's use installed MQTT Broker, but if you use any other MQTT Broker, please fell free to use it as well.

Please open the web browser and enter IP address and port of GANZ Smart Terminal. The device displays actual IP on right top corner of the screen, e.g. http://192.168.12.133:7080/

Go to **Configuration page >> Network >> Advanced Settings >> MQTT**, and enter IP address of the computer, where MQTT Broker is installed. Please use default port **1883**, user name and password that was created „**test/test**".

Once this configuration is completed, please click Apply button and after 3 seconds refresh this page and check if Connection status is 'Connected'. If so, then all configuration is correct and terminal is working correctly.
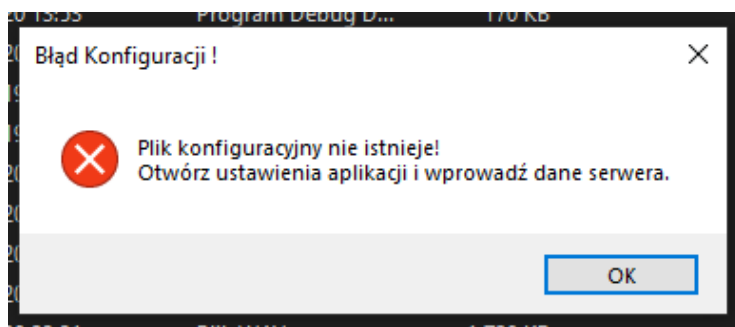
Next, please open Ganz Smart Terminal Client software and go to the next chapter.

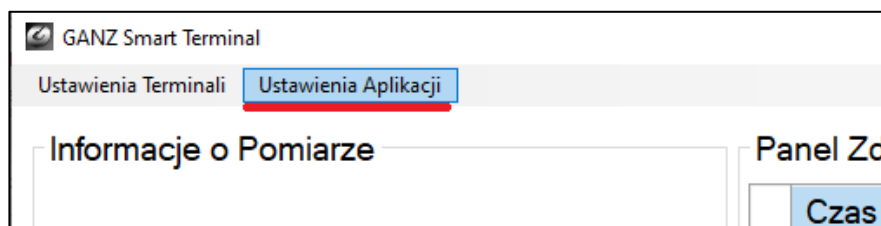### 4. Application GANZ Smart Terminal – First start and configuration

In this few sections, we describe GANZ Smart Terminal application, how to establish connection to broker and how to add/delete the Devices.

4.1. Connect To MQTT Broker

When the application is launched for the first time, the following message will be displayed:
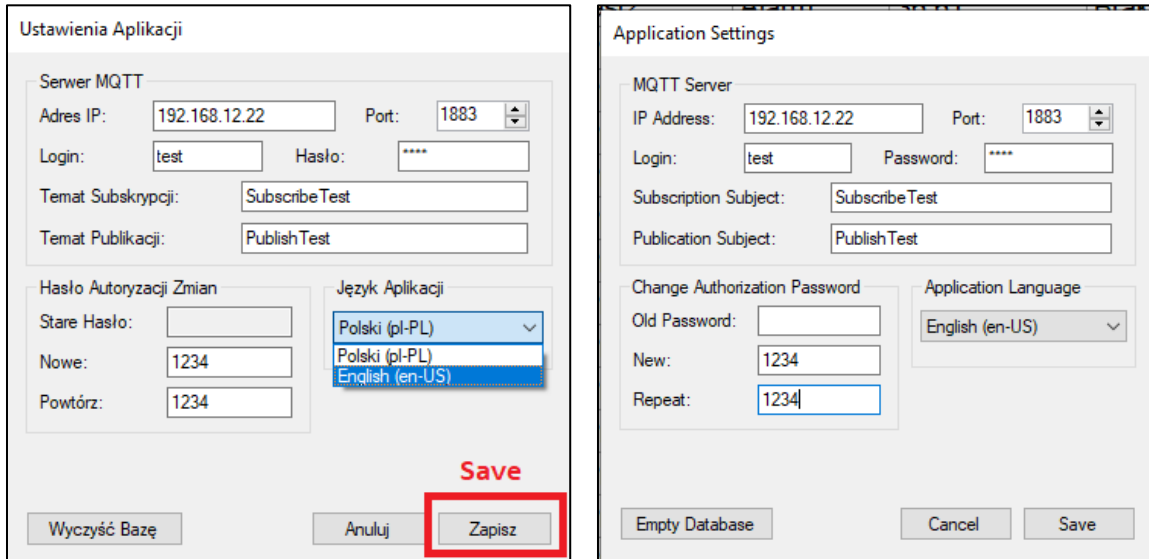

Since the native language of the application is Polish, an error message about the lack of application configuration will be displayed. Click "OK" and go to the application settings by clicking "Application Settings (Ustawienia Aplikacji)".

The Settings window will be displayed. You can change the language, we well as enter the connection parameters to the MQTT Broker, and enter the password protecting against changing the application settings.
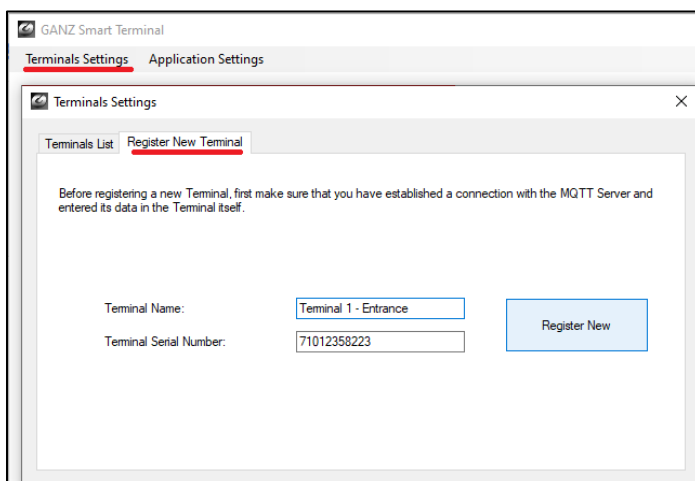

After entering all settings, click Save (Zapisz) buton. Then, you must close application and re-open it again. Always if you change any some settings in this window, you must re-open the application in order to apply changes.

Empty Database button is used to clear the database file, which stores all events from Terminals on local computer. This is not related to the database in Terminal Device.

Subscription and Publication Topics must be the same as in the Terminal Device in Advanced Settings page on MQTT tab.

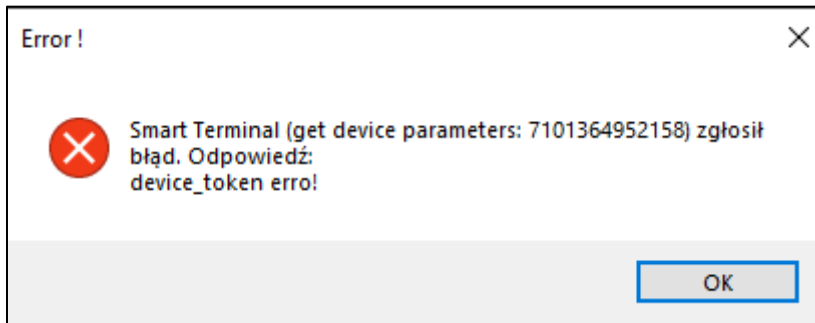### 4.2. Add GANZ Smart Terminal Device – Binding Procedure

To add GANZ Smart Terminal Device to the application, you have to bind this device with MQTT Broker. In order to do it, please go to „Terminals Settings" and click „Register New Terminal" tab.

If you received a confirmation message that new Terminal has been added, you can close this window and now you receive data on-line from the device.
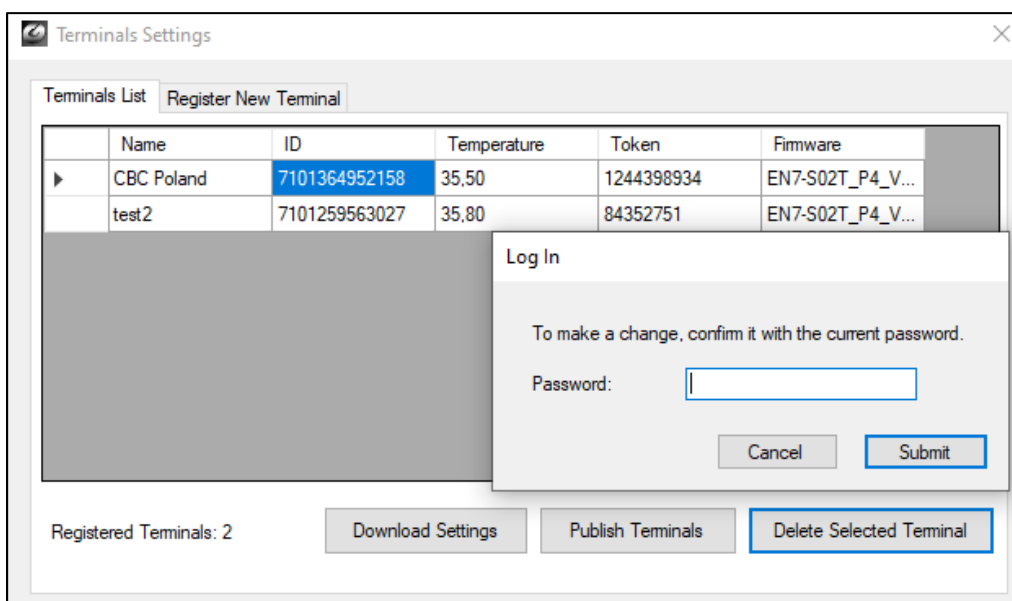
However, if you got following message:

It means the device was already registered with another MQTT Broker. In this situation you can do any of those two following actions:

- Unregister device from previousely registered MQTT Broker. Delete the Device while connection between Device and 'old' Broker is active (connected).
- Reset Smart terminal Device to default Settings.

4.3. Delete or Changed GANZ Smart Terminal Device Configuration

If you want to disable or remove Device from Broker, go to „Terminals Settings" and Terminals List tab. Always, when you want to change the IP address of MQTT Broker in GANZ Smart Terminal Device settings, firstly you must Delete it from actual connected Broker. Otherwise, adding this device to another Broker is impossible (disable).

In order to delete the Device, you have to enter password created during initial running of the application:
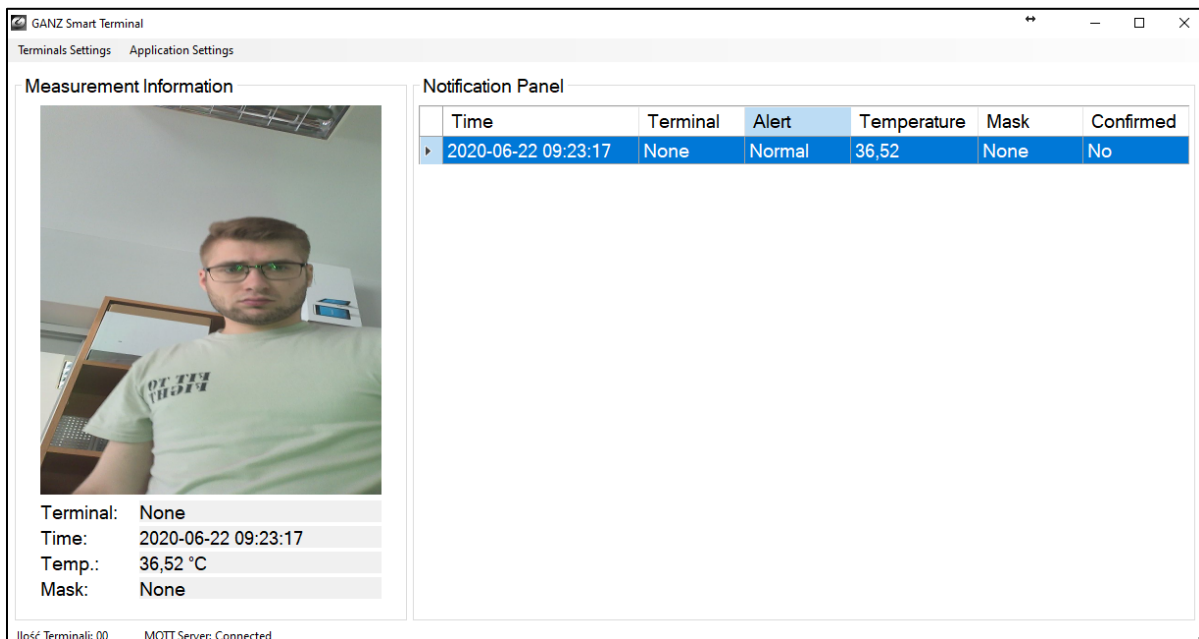
Download Settings button – always if you change temperature or any other settings on GANZ Smart Terminal Device, you must click this button to import these new configuration to Application. Otherwise the application may trigger an alarm at the wrong / previous temperaturę.

Publish Terminals button – If you want to add more GANZ Smart Terminal Applications on the same Broker, you must to do the First Run of Application, then you can not add the terminals to these new Application instance (for security reasons, only one Registration Platform) but you can Publish all terminals in list to others installation of these application.

4.4. GANZ Smart Terminal interface

The main window (center/right side) shows all coming alarm events from Smart Terminals.

Red color events require checking by operator. Double click on checked event changes it status (Confirmed: YES) and color from Red to Green.

The content of the list can be sorted by columns.

The left side window displays the details of Event selected and highlighted on the list.

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