TRX RoIP

Radio over IP

USER
GUIDE
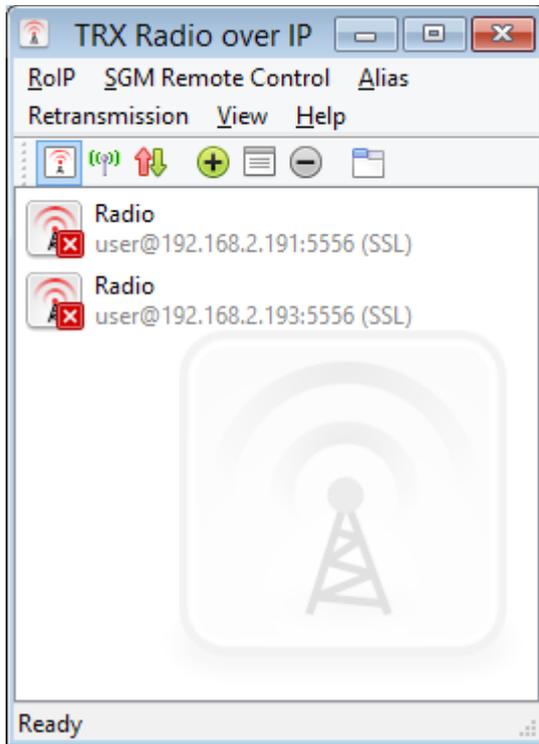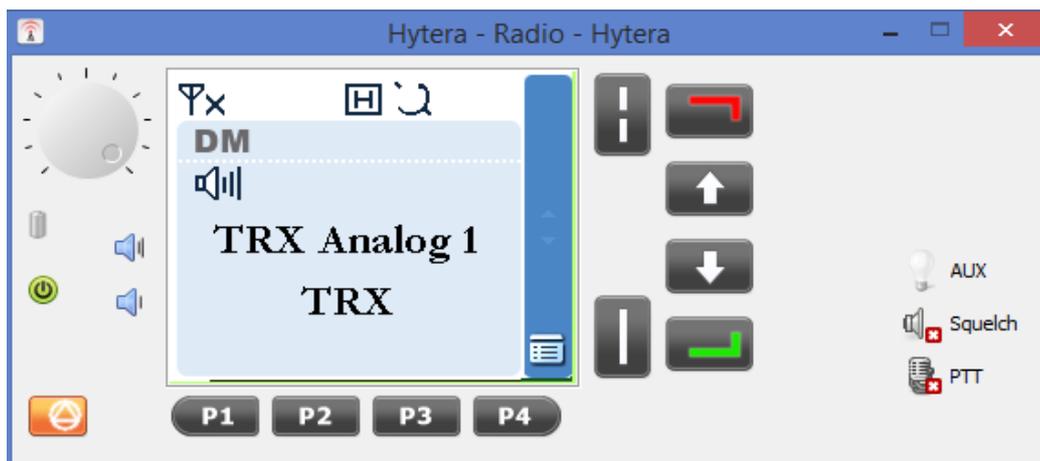
© TRX S.C. 05.11.2014

Table of content

1. Radio over IP – introduction

RoIP application allow remote controlling radios through SGM remote control. There are no limits of number of radios open on one computer.

RoIP allow to configure SGM5E settings like:
- change radio type working with SGM5E,
- network configuration,
- audio levels,
- users and privileges,
- firmware of SGM5E.

2.   Installation

RoIP requirements: Windows 8/Windows 7/ Windows Vista/ Windows XP/ Windows 2000/ Windows 2003 Server, graphic card working in High Color(16-bit) or True Color(32-bit) and PCI sound card or integrated sound card. USB audio devices works properly only in Windows 7 and Windows Vista.

1. To install RoIP execute TRX_RoIP.exe. Allow application to make changes in your computer.

2. Choose your language.

3. Choose directory

4. Check where to put shortcuts: Desktop, Menu Start, Autostart

5. Press Install

6. Installer may show alert about unsigned driver, 'press continue anyway'

7. Close installer

3. RoIP configuration

3.1. Connecting with SGM device

SGM5E default IP address is 172.16.0.189To connect to device add IP address in network configuration (ex. 172.16.0.190)
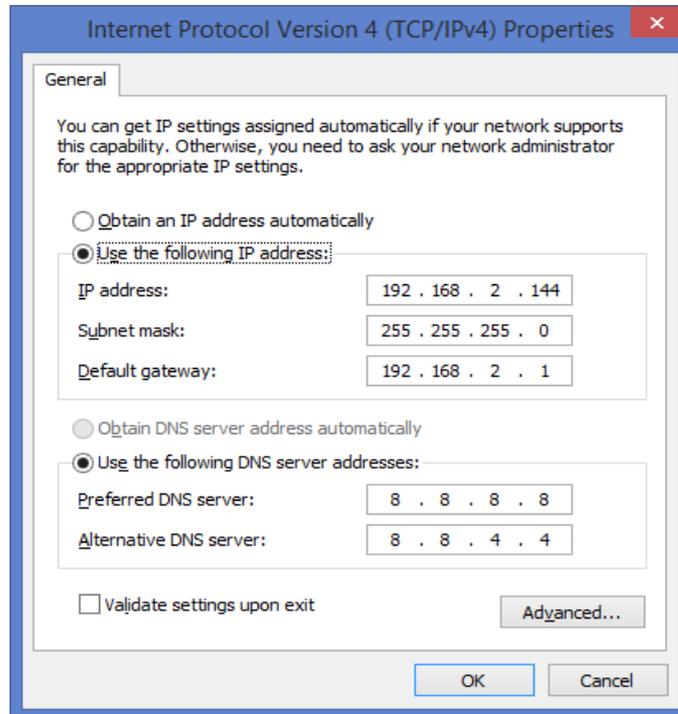
Open 'Network and Sharing Center' and on left side go to 'Change adapter settings', right click your network device and choose properties:
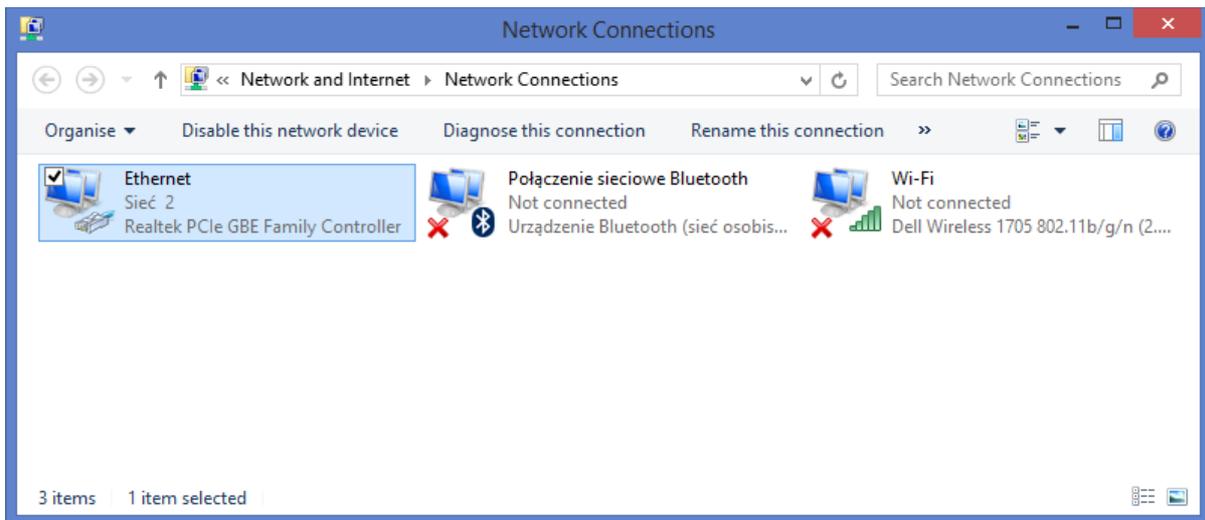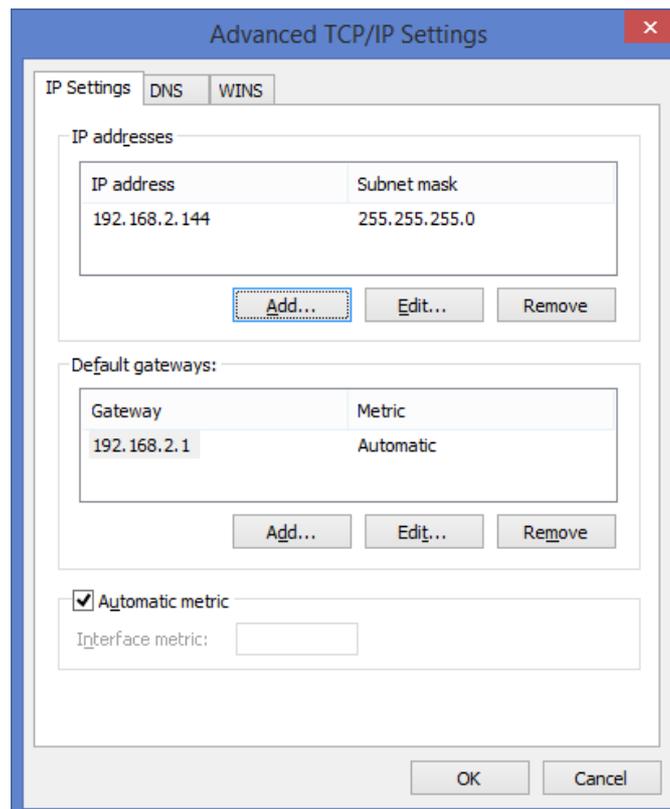

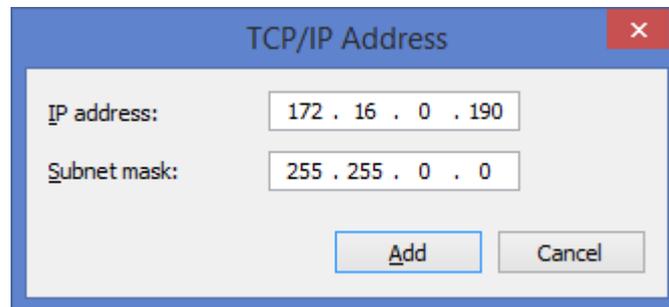In properties window select 'Internet prtocol version 4 (TCP/IP v4)' and click properties.
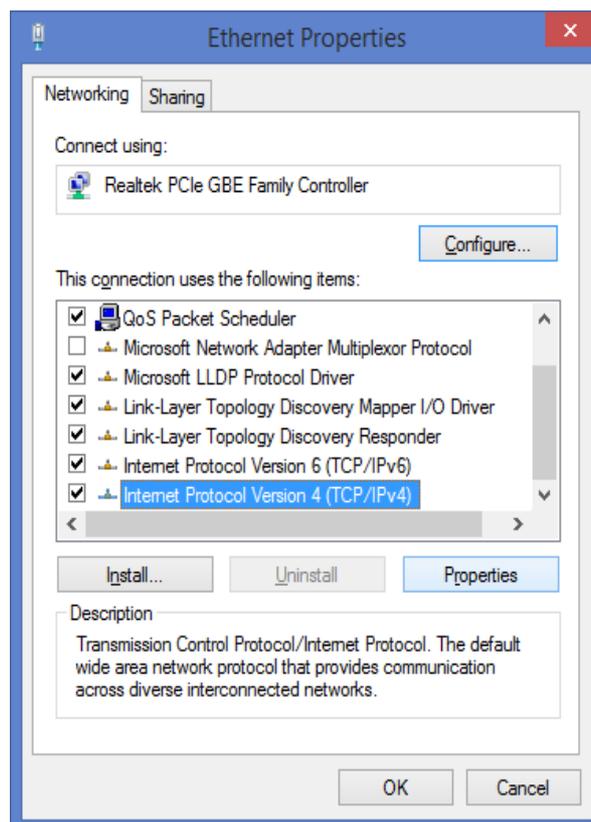
In new window click 'Advanced...' button:


Click 'add...' under IP addresses

Add IP ex. 172.16.0.190 and mask 255.255.0.0 and click 'Add'

If there is any problem with this connection try to automatic diagnose network connection or restart network card.

To check if connection with SGM5E is established open Windows command prompt and type 'ping 172.16.0.189'. If computer get answer from SGM, open RoIP to configure remote control.
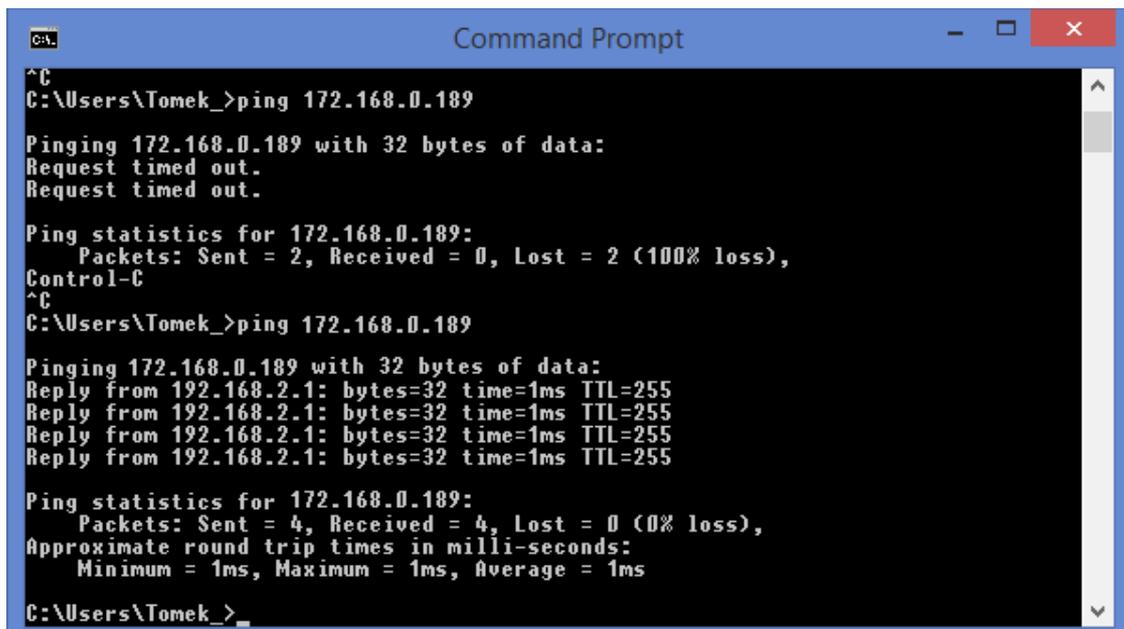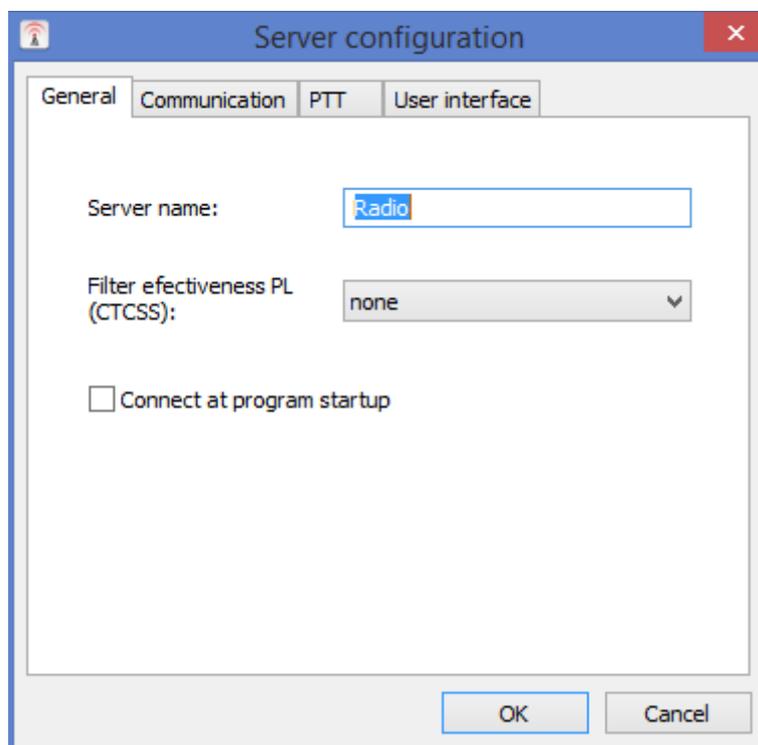
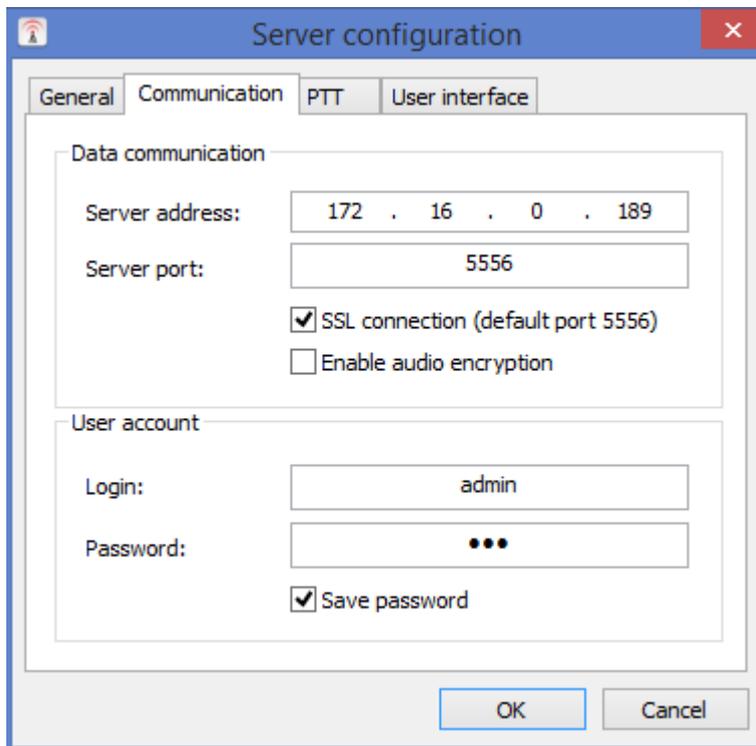## 3.2. Adding SGM remote controls in RoIP
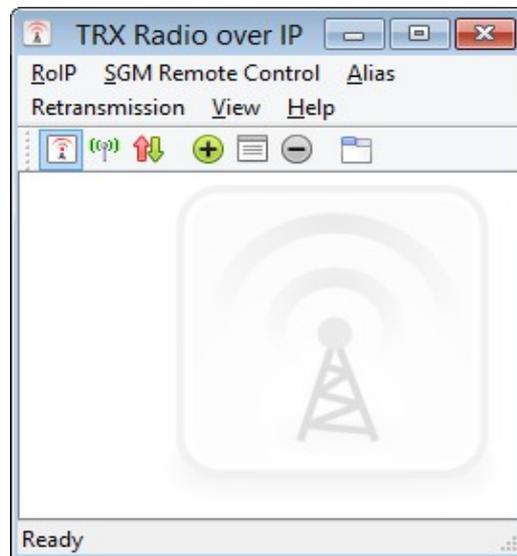
RoIP window

To add new server click button. Server configuration window will pop up.

Name is for user to recognize SGM on list.
Filter efectiveness PL(CTCSS) allow to setup high-pass filter to cut electrical hum.
Connecting automatically to SGM with program start is option, check box to use this function.

First connect to SGM with default parameters:

IP address - 172.16.0.189
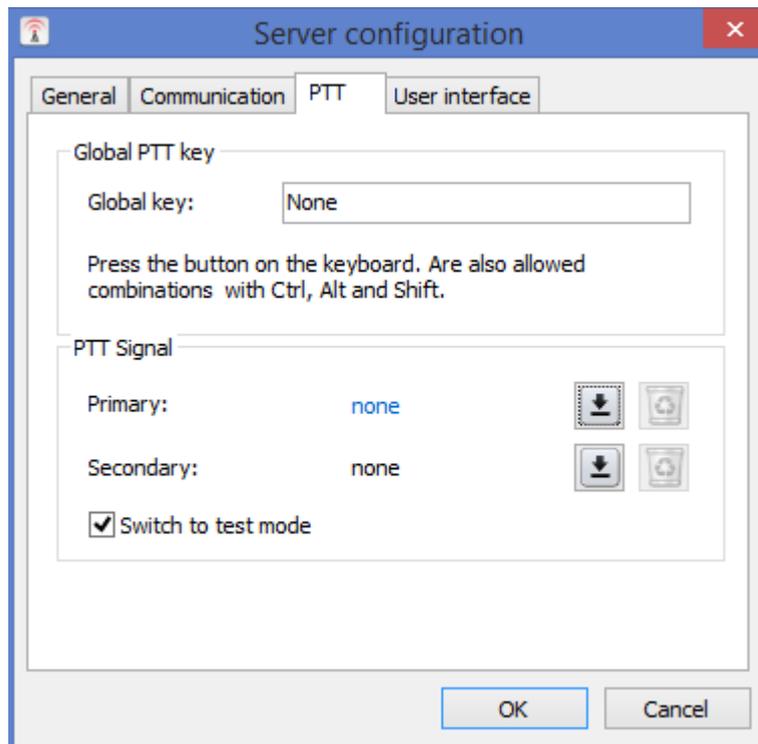Server port: 5555 or 5556 for SSL connection
Admin login – admin (to configure IP adress)
User login – user (to connect to SGM)
Default password – xxx

This is minimal configuration needed to connect and use SGM5E server.

To configure basic and alternative PTT signal, go to PTT tab.

Global PTT key, configure which button works as PTT. Combinations with keys like Shift, Alt are allowed.

PTT Signal configure PTT signals from external devices, TRX HT desk I/O audio device, Motorola microphones. Just press button from device. When listening is active.

User interface tab is for setting descriptions for radio buttons. Maximal length is 30 characters. If radio window is open changes will be applied after reopen.
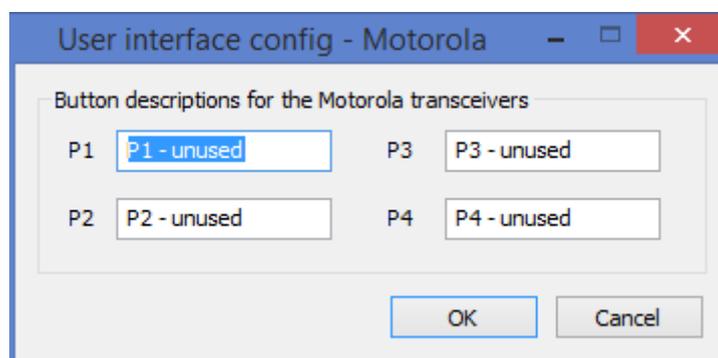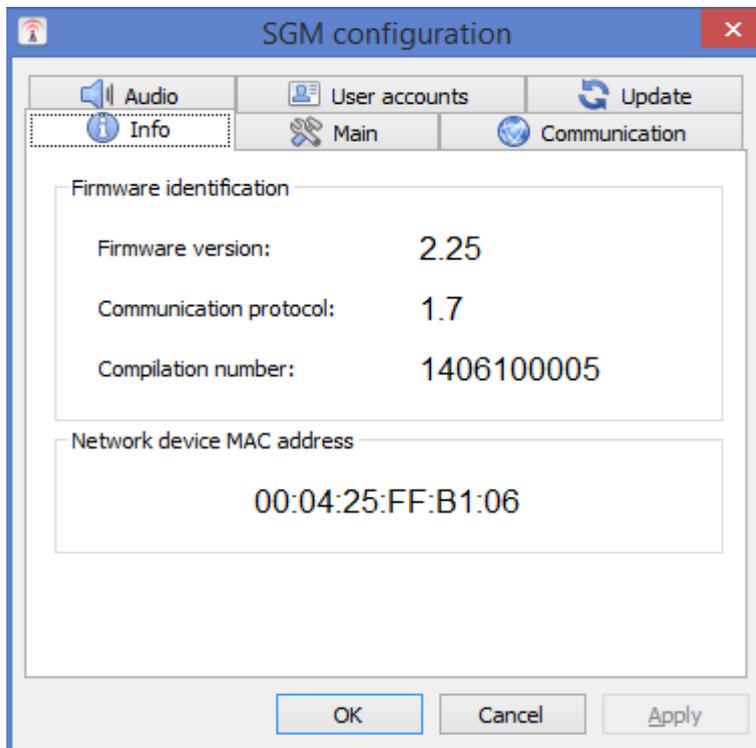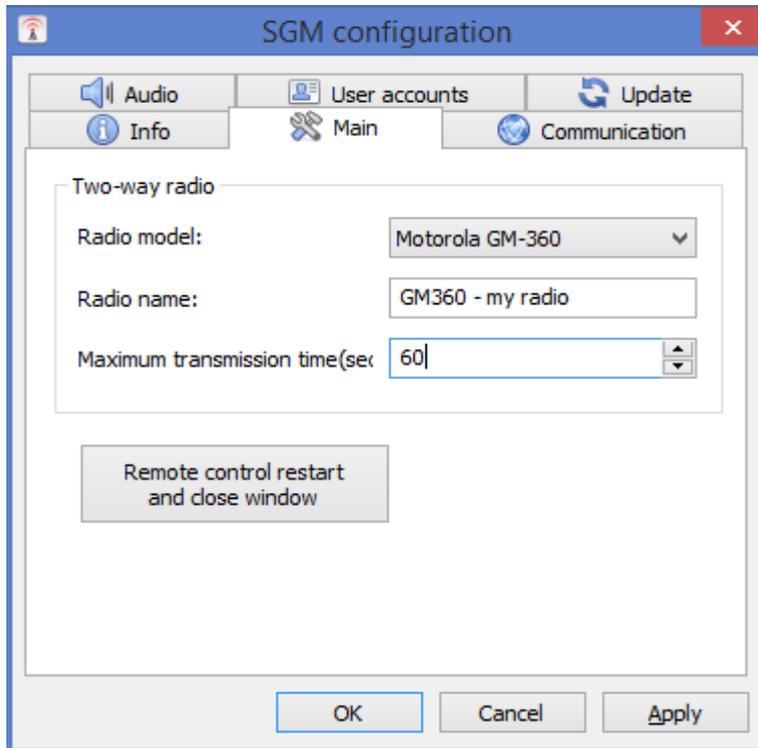
3.3. Connecting to server as administrator

To connect to SGM server right click on server on list and click 'Connect administration session'. Enter login and password (default: admin/xxx):
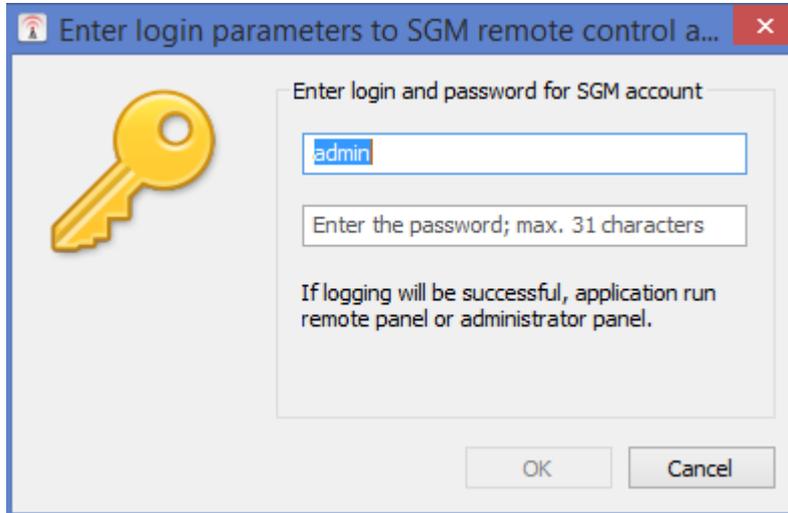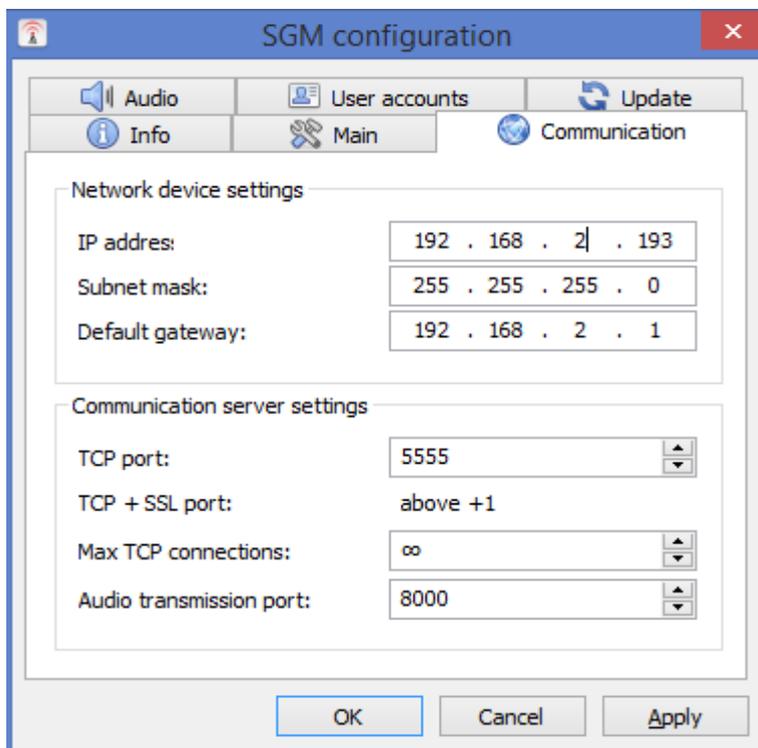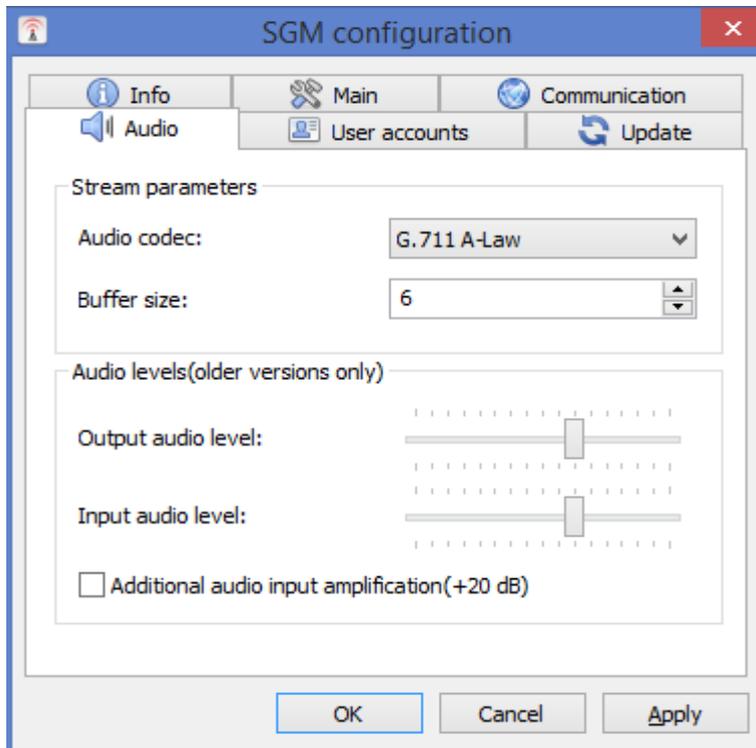

3.4. Server configuration

In 'Main' tab configure radio model used with SGM5E. Radio name will be displayed in radio window title bar.
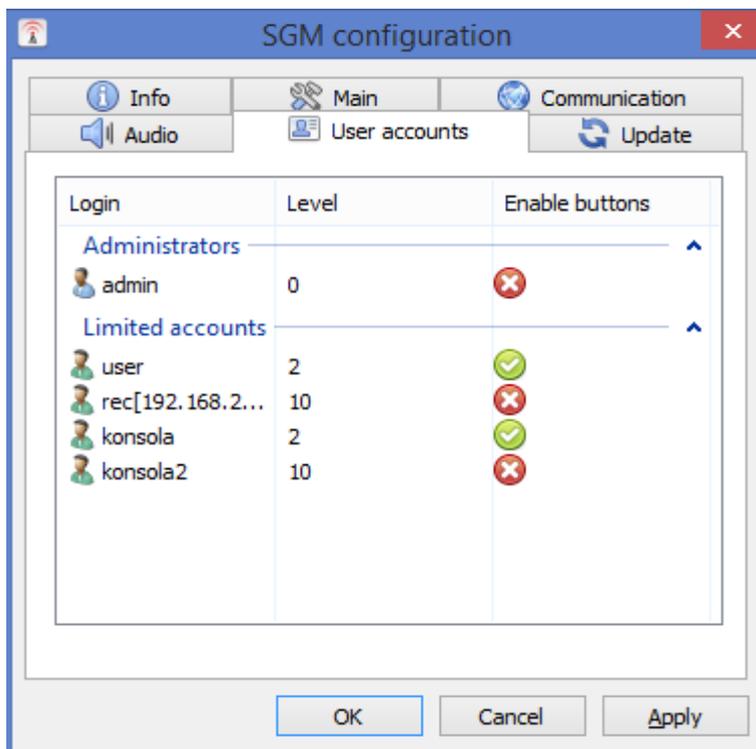

In communication tab set up network configuration to fit to local network addressation.

Codecs can be configured in 'Audio' tab.
GSM codec is to use with low bandwidth, A-Law for high bandwidth, Speex have best compression, but audio quality is poor.
Recommended value for 'Buffer size' is 6 packets

In 'User accounts' tab use right button to add/delete accounts.

Add user window:

Each user should have his own account. Working on same account can cause conflicts. User with higher level(lower number) have privilegest to break other user transmission. Breaking is signalized by short sound signal. This sound is also when device break transmission after setted interval(default 60 seconds).

Firmware upadate, load file with firmware and press update button.
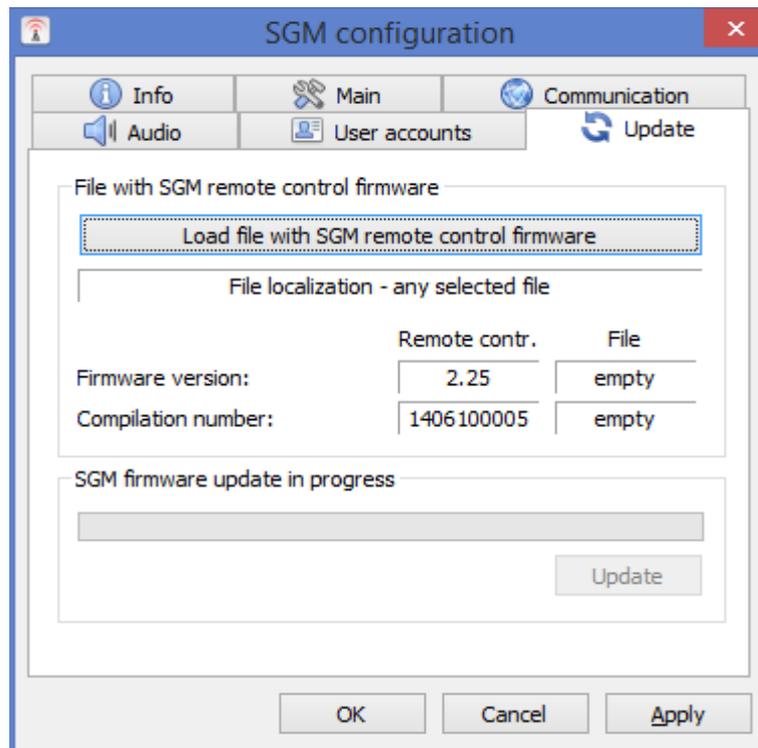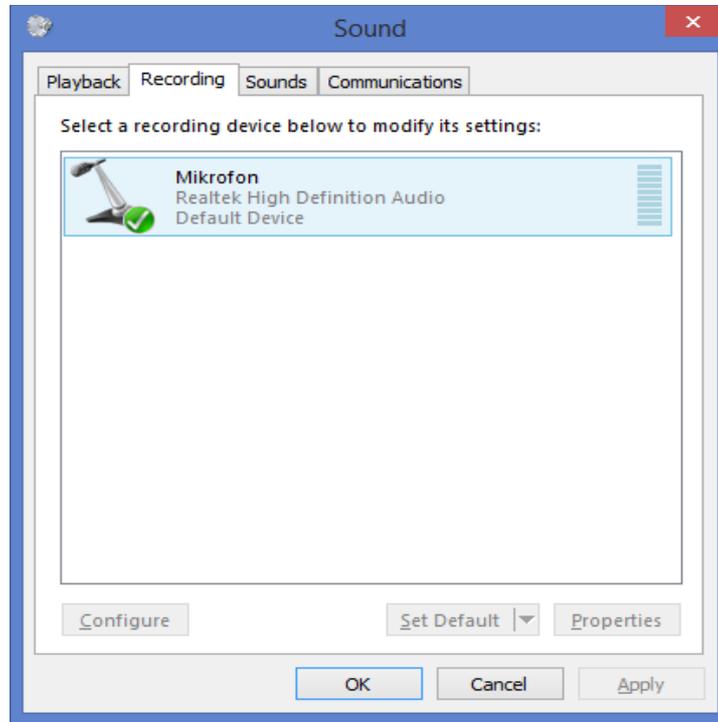

After configuration press OK, SGM device will restart(~1 minute).

Do not switch off SGM5E during update!

To get file to update SGM please contact us trx@trx.pl. After sucessful update SGM5 will play short sound.

4. Microphone configuration

To have best audio quality it is needed to properly set up microphone. To open sound settings go to Control Panel > Sound.

Right click on used microphone and click 'Properties'. In 'Levels' tab adjust settings to best performance in working enviroment. For example set first slider on 100% and second to +10dB.
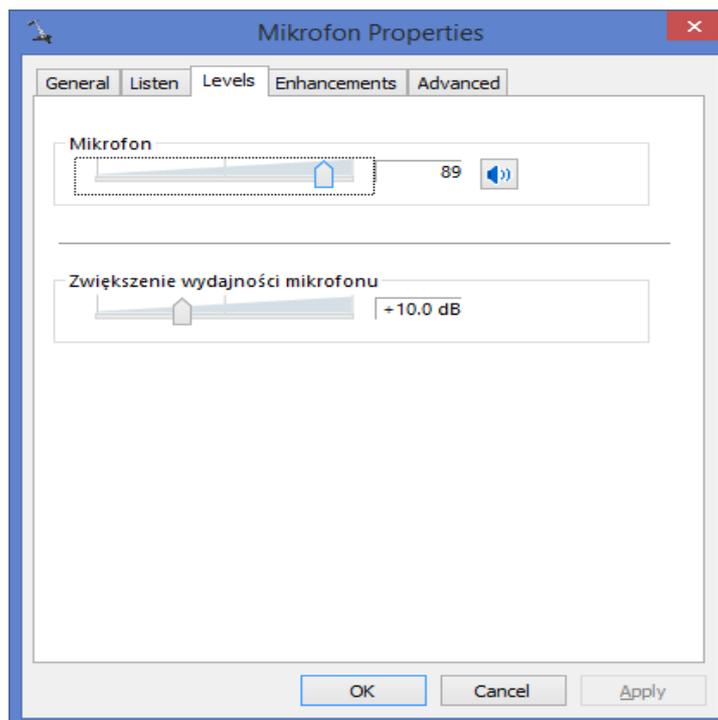
In 'Listen' tab uncheck 'listen to this device'.

5. GM360

Turn on/of radio

Transmiting/Recieving

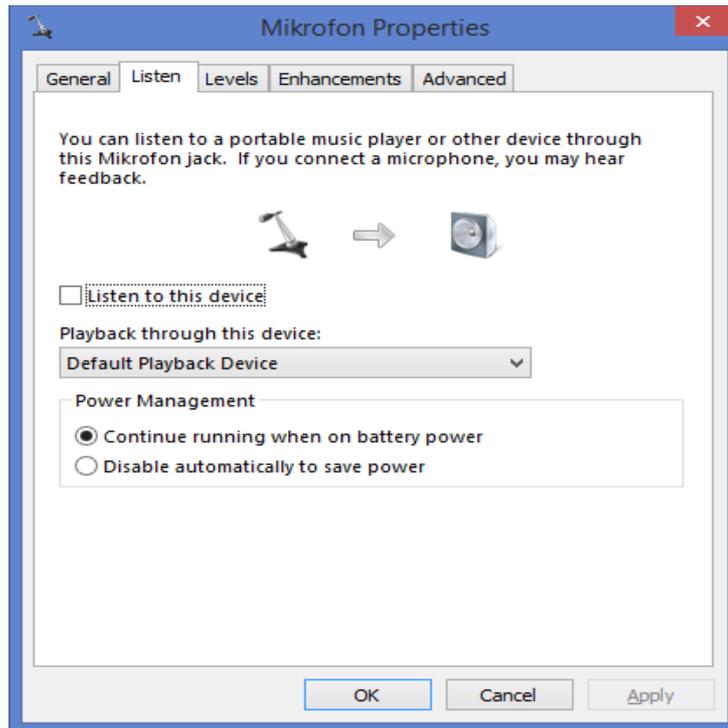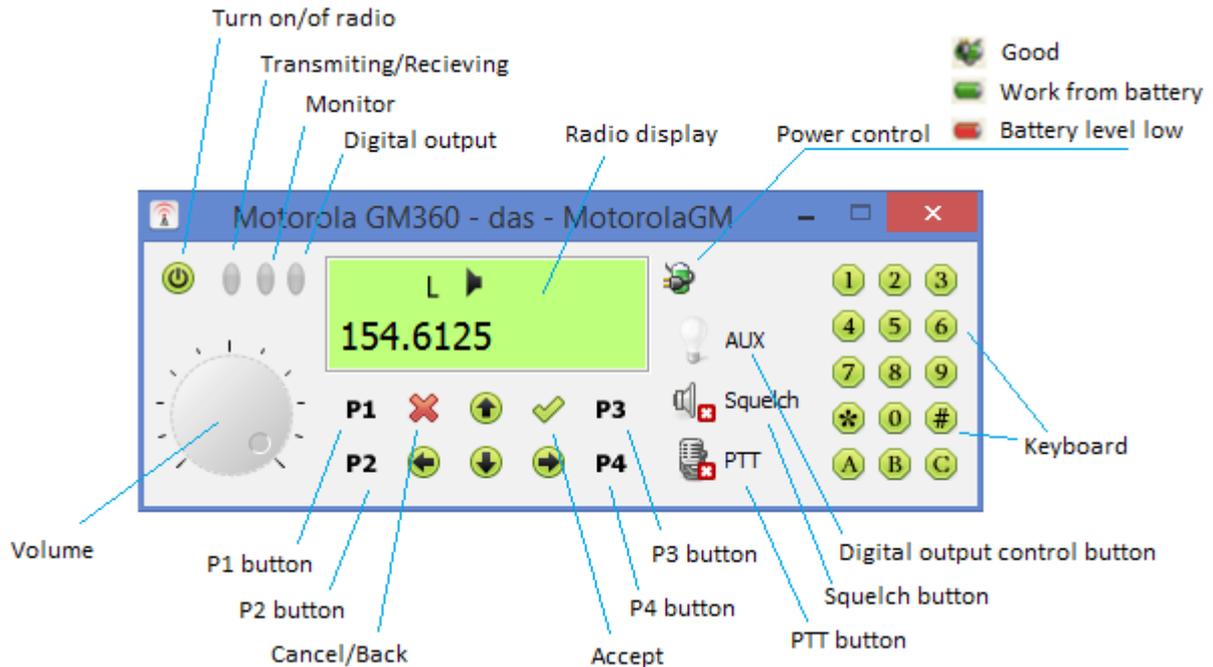Monitor

Digital output

Radio display

Power control

Good

Work from battery

Battery level low

Motorola GM360 - das - MotorolaGM

L

154.6125

AUX

P1   P3

Squelch

P2   P4

PTT

Keyboard

Volume

P1 button

P2 button

Cancel/Back

Accept

P3 button

P4 button

PTT button

Squelch button

Digital output control button

Radio window contains all the buttons from radio front panel.
Red led – radio in transmit/recieve
Yellow led – radio in monitoring state
Blue led aux – high level (pin21 DB-25 connector in SGM5E)

Display is copied display from radio.

Red background – transmiting.
Green background – recieving.

Display color changing can be switched off by right click on display and uncheck option.

By right clicking on title bar od radio window can be configured:

Window always on top, show/hide numeric keyboard, autohide window.