



## Multichannel IP/SMS receiver RM14

### User Manual

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## **I. Safety requirements**

Multichannel receiver RM14 is an electrical device, therefore it may only be installed by qualified specialists following this manual and regulations for installing electrical equipment.

Multichannel receiver RM14 must be operated following this manual and regulations for safe operation of electrical equipment.

## II. About receiver

IP/SMS receiver RM14 is purposed for Central Monitoring Stations (CMS). It is designed to receive messages transmitted through Trikidis transmission modules, which are sent in TCP/UDP protocols or SMS messages. After processing received messages, it sends the data to the monitoring software through LAN or RS232 port.

## III. Receiver functionality

Receiver has an integrated industrial computer with software IPcom v4 operating in OS Linux environment. Software Ipcom v4 is designed to process message traffic received via 1) receiver network adapter card, 2) integrated SMS receiver, 3) receiver lead-in RS232.

Network card receives messages sent in TCP/UDP protocols. SMS receiver receives messages sent in Contact ID codes. RS232 port receives Contact ID codes in Sugard MRL-DG protocol.

Receiver's functionality is set in the license, which affect the parameters of IPcomControl v4 software. Receiver's parameters are set while configuring IPcomControl v4, which must be installed in MS Windows OS computer, located in the same network as the receiver.

There are multiple channels set for receiving messages and multiple ports for transferring messages to the monitoring software. The functionality and physical parameters of these channels and ports are configured while setting up the receiver.

### Receiving messages (without inserted reception cards):

Receives messages using TCP/IP or UDP/IP protocols sent by TRIKDIS GPRS communicators G10, G10C, G10T, G10D via GPRS and/or SMS channels.
Receives messages using TCP/IP or UDP/IP protocols sent by TRIKDIS Ethernet communicators E10, E10C, E10T via wired internet networks.
Receives messages using TCP/IP or UDP/IP protocols sent by TRIKDIS GPRS communicators G10F, FireCom via GPRS and/or SMS channels.
Receives messages using TCP/IP or UDP/IP protocols sent by TRIKDIS control panels CG3 and SP131 via GPRS and/or SMS channels.
Receives messages using UDP/IP protocols sent by TRIKDIS repeaters RR-GSM and R-IP12.
Receives messages sent by receivers from other manufacturers via lead-in RS232.

### Receiving messages via inserted reception cards:

Receiving adapter card-receiver <b>RF11</b> is inserted into receiver RM14 in order to receive messages sent by radio transmitters T10, T10C, T7, T7P, T7M, etc. and repeaters RR-VHF, etc.	<b>RF11</b> – reception module is set to operate in a certain VHF band (146-174 MHz) radio frequency and is designed to receive intrusion and fire alarm system messages sent by radio transmitters. Message encoding: RAS3, RAS-2M, LARS, LARS1, Milcol-D.
Receiving adapter card-receiver <b>RF11U</b> is inserted into receiver RM14 in order to receive messages sent by radio transmitters T10U, T10UC, T7U, T7UP, T7UM, etc. and repeaters RR-UHF, etc.	<b>RF11U</b> – reception module is set to operate in a certain UHF band (410-470 MHz) radio frequency and is designed to receive intrusion and fire alarm system messages sent by radio transmitters. Message encoding: RAS3, RAS-2M, LARS, LARS1, Milcol-D.
Receiving adapter card-receiver <b>RT2</b> is inserted into receiver RM14 in order to receive messages sent by control panel telephone communicator via fixed telephone lines.	<b>RT2</b> – is a telephone receiver designed to receive intrusion alarm system messages transmitted by control panel telephone communicators from various manufacturers via fixed telephone lines. Compatible formats: Contact ID, Ademco Express 4+2, SIA FSK, 3/1, 4/1, 4/2, etc.

**IV. Technical parameters**

Number of IP communicators	Unlimited
Number of reception channels	Initial license allows two channels
Communication protocols	TCP/UDP TRK-3, TRK-6, TRK-7
Physical port of network adapter card	RJ-45 (FastEthernet 10/100)
Modem of integrated SMS receiver	GSM 850/ 900/ 1800/ 1900 MHz
Integrated SMS receiver SIM card type	Standard, not supplied with the receiver
Purpose of RS232 ports	It can configured to work as INPUT or OUTPUT for data transferring
Number of RS232 ports	3
Data output protocols	Surgard MLR2-DG, Monas3
Physical type of RS232 ports	Male connector DB9
Setting parameters and monitoring the operation	Computer operating in the same network with MS Windows 32/64 bit Win7, Win8, Win8.1, Win10 and software IPcomControl v4
Number of workplaces	Initial license allows adding 2 workplaces
Primary power supply	110 – 240 V (50 / 60 Hz) AC network
Power / Current consumption	Up to 60W / 0.35A
Backup power supply	12 V, capacity of 18Ah or more. Charging current up to 900 mA.
Operating temperature	From 0 °C to +55 °C
Dimensions	19" 2U (450 x 50 x 320 mm)
Weight	3.8 kg

**V. Equipment**

- Multichannel receiver RM14 1 pc.
- 2.5 m length GSM antenna with a magnetic pad 1 pc.
- 1.5 m length power supply cable 1 pc.
- 1.8 m length Null Modem-type COM cable (f/f) 1 pc.
- 5 m LAN cable 1 pc.
- CD with software IPcomControl v4 and user manual 1 pc.

## VI. Receiver elements

### A. Front view and light indication.



Front view of receiver RM14

#### Light indication

Indicator	Description
Power	Blue light when power supply is on.
System	Green light when receiver is operating without problems. Red light when receiver is experiencing problems.
TCP OUT	<p><b>Active</b> – blue light when TCP/IP data transmission channel is on.</p> <p><b>Status</b> – green light when TCP/IP connection with message monitoring software.</p> <p>Yellow light when TCP/IP connection with message monitoring software is online via some LAN ports but has been lost via the rest.</p> <p>Red light when receiver has lost TCP/IP connection via all LAN ports.</p> <p><b>Event</b> – blue light when message is being sent to message monitoring software.</p>
TCP IN	<p><b>Active</b> - blue light when TCP/IP or UDP/IP reception channel is on.</p> <p><b>Status</b> – green light when network cable is connected and receiver may access the internet.</p> <p>Red light when internet connection is lost.</p> <p><b>Event</b> – blue light when a message is being received via port.</p>
SMS	<p><b>Active</b> – blue light when SMS reception is on.</p> <p><b>Status</b> – green light when SMS modem is connected and successfully registered in GSM network.</p> <p>Red light when connection with the receiver or GSM network is lost.</p> <p><b>Event</b> – blue light when an SMS message is being received.</p>
COM1	<p><b>Active</b> - blue light when port COM1 is described and active.</p> <p><b>Status</b> – green light when RS232 connection with another receiver or messages monitoring software is online.</p> <p>Red light when connection is lost.</p> <p><b>Event</b> – blue light when a message is being received via port.</p>
COM2	<p><b>Active</b> – blue light when port COM2 is described and active.</p> <p><b>Status</b> - green light when RS232 connection with another receiver or messages monitoring software is online.</p> <p>Red light when connection is lost.</p> <p><b>Event</b> – blue light when a message is being received via port.</p>
COM3	<p><b>Active</b> - blue light when port COM3 is described and active.</p> <p><b>Status</b> – green light when RS232 connection with another receiver is online.</p> <p>Red light when connection is lost.</p> <p><b>Event</b> – blue light when a message is being received via port.</p>
1-4	<p><b>Active</b> – blue light when receiving adapted card is inserted and operating.</p> <p><b>Status</b> – green light when receiver computer communicates with receiving adapter card.</p> <p>Red light when connection is lost.</p> <p><b>Event</b> – blue light when a message is being received via port.</p>

## B. Rear view and rear panel elements.



Rear view of the receiver

### Rear panel elements

Element	Description
LAN	Connector RJ45 for network adapter card.
COM1	1st serial port RS232 that is set as data lead-in or output (male connector DB9).
COM2	2nd serial port RS232 that is set as data lead-in or output (male connector DB9).
COM3	3rd serial port RS232 that is set as data lead-in or output (male connector DB9).
Reset	Microswitch that resets default internet addresses of receiver network adapter card when pressed and held for more than 5 seconds.
Antenna	SMA-type female connector for GSM antenna of SMS modem GM15.
HDMI	HDMI connector for monitor.
	Connector for receiver grounding circuit.
- BAT +	Dismountable connector for backup power supply battery (at least 18 Ah 12 V). Battery status may be controlled if there are no power supply problems. Battery charging current - 900 mA.
100-240VAC	Power supply cable connector and switch O/I.
RF11	Receiving adapter card RF11 is inserted into the 1st slot as an example.
<b>Note: 3 protective covers for receiving network adapter card slots.</b>	

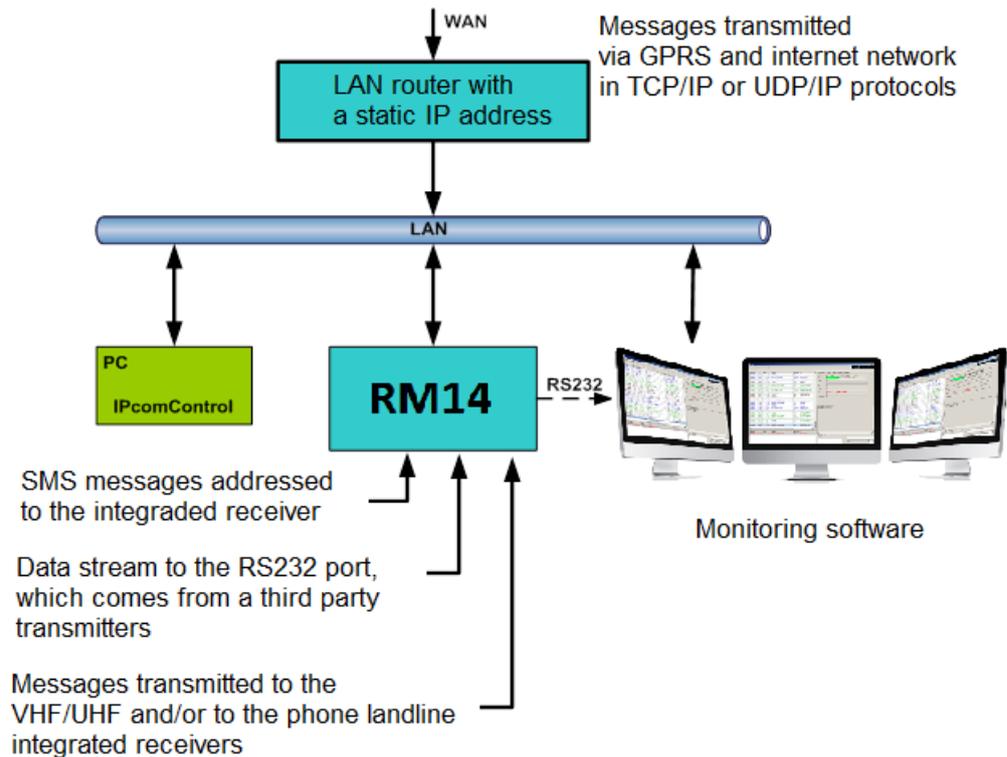
## VII. Preparing the receiver for operation

**Note:** Receiver will operate correctly, i.e. it will receive messages sent using TCP/IP, UDP/IP connection and/or SMS messages without inserted receiving adapter cards.

1. Power supply must be turned off when receiver is being prepared for operation, i.e. 1) receiver power supply cable must be disconnected from the network and 2) receiver connector BAT to which backup power supply circuit is connected must be unplugged.

**Note:** Receiver will fully shut down only 2 minutes after turning off the power supply!

2. Insert an already registered regular size SMS card of the chosen network provider into receiver's SMS card slot in order to receive SMS messages from Trikdis message transmission modules.
3. Position the receiver on a solid clean horizontal surface and remove side and top covers. Insert the SIM card into a SMS receiver's SIM card slot. Put side and top covers back on.
4. Corresponding receiving adapter cards must be inserted into receiver's adapter card slots in order to receive messages transmitted in VHF/UHF range radio frequencies or fixed telephone lines.
5. Unscrew the fixing screws of receiving adapter card slot cover (e.g. the first one) in order to insert receiving adapter card(s). Insert the adapter card into the slot. Screw the adapter card using fixing screws.
6. Mount the receiver in a 19" server rack.
7. Screw the necessary antennas.
8. Prepare a LAN according to a principal scheme below:



9. Install software *IPcomControl v4* (see *Configuring the receiver*) on the computer that will be used to configure receiver RM14.
10. Change the IP address of the computer that will be used to configure receiver RM14 to that required by the receiver manufacturer (see *Configuring the receiver*).
11. Connect receiver RM14 and the computer that will be used to configure the parameters of the receiver using LAN cable (see *Configuring the receiver*).
12. Insert the power supply cable connector into the 110-220 V power socket of the receiver and plug the cable into the mains socket.
13. Turn on the power supply of the receiver, i.e. toggle the power supply switch O/I to I. Power supply is indicated by the blue light diode Power. A sound signal will indicate that receiver is prepared for configuration.
14. Configure parameters of receiver RM14 **in the following order**:
  - 1) Set the parameters of the receiver network adapter card so that receiver may operate in a designated LAN (see section *Connecting to a new receiver*);
  - 2) Describe physical receiver ports functionality and their parameters (see tabs *COM settings* and *Receivers* under section *Configuring the receiver*);
  - 3) Add and describe ports through which message traffic is directed to the message monitoring software (see tab *Outputs* under section *Configuring the receiver*);
  - 4) Add and describe ports through which message traffic will be received (see tabs *COM settings* and *Receivers* under section *Configuring the receiver*);
  - 5) Add and describe programmable receivers which will direct processed message traffic through ports to message monitoring software (see tab *Receiver* under section *Configuring the receiver*);
  - 6) Add and describe users who will be permitted to log in and perform assigned tasks during operation of the receiver (see tab *Users* under section *Configuring the receiver*).
15. Disconnect the LAN cable from the receiver and the computer (if it does not belong to LAN) once desired receiver parameters are set.
16. Connect receiver RM14 and the computer with message monitoring software.
  - 1) Use RS232 cable supplied with the equipment to connect the chosen receiver output COM and computer with message monitoring software if messages will be transmitted to the message monitoring software using port RS232;
  - 2) Connect the receiver and the local area network with operating server-computer with message monitoring software via receiver network adapter card connector LAN if messages will be transmitted to the message monitoring software via LAN.

## VIII. Configuring the receiver

Operation parameters of receiver RM14 are set and edited using software *IPcomControl v4* on a computer with OS MS Windows operating in the same LAN. Software may be found in the supplied CD or on [www.trikdis.lt](http://www.trikdis.lt). Install software *IPcomControl v4* on the computer.

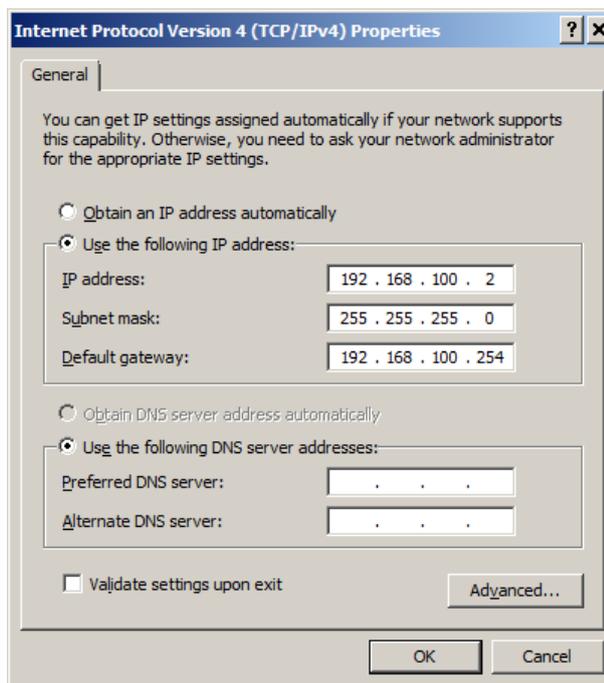
### A. Connecting to a new receiver and setting LAN addresses.

Default addresses of network adapter card:

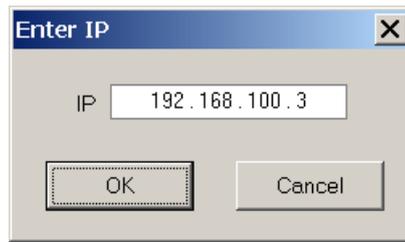
IP address	192.168.100.3
Port	55000
Subnet mask	255.255.255.0
Gateway	192.168.100.254

In order to restore default settings refer to chapter IX. Resetting default parameters.

1. Computer and receiver must operate in the same network in order to configure the receiver. Change the network adapter card addresses of the computer that will be used to configure the receiver to match those indicated in the tab.



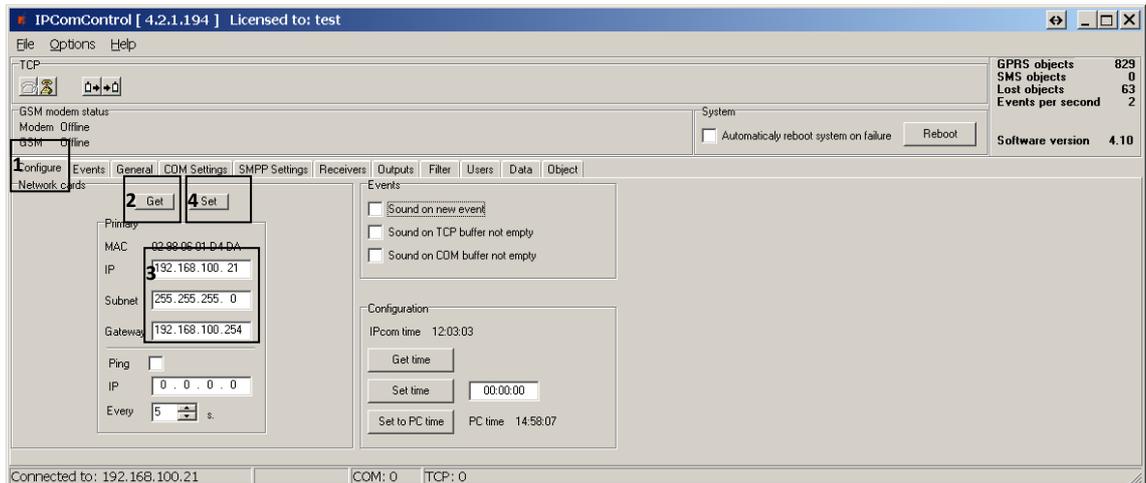
2. Use LAN cable to connect the receiver and the computer that will be used to configure the receiver.
3. Turn on the main power supply and wait a few seconds until a sound signal will indicate that receiver is on.
4. Run *IPcomControl v4*. Enter the default IP address of the receiver network adapter card and click OK.



5. Enter the User name (*administrator*) and password (*admin*) when prompted. Click **Login**.



6. Select IPcomControl v4 tab **Configure**. Click **Get**. Enter LAN values into boxes **Primary IP**, **Subnet** and **Gateway** in order to connect the receiver to the network. Click **Set**.

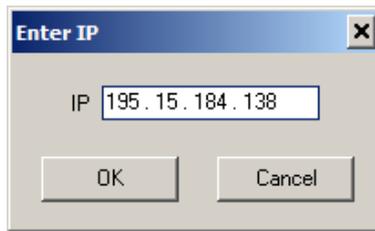


7. Receiver should automatically reboot and restart. Software IPcomControl v4 will close automatically. Receiver is prepared for operation in LAN.
8. Disconnect the LAN configuration cable from the receiver and plug in the cable of local area network whose addresses were just set in its place.
9. Restore network adapter card addresses of the computer that was used to configure the receiver. Computer may now operate in previously used networks.

## B. Connecting to a receiver operating in LAN.

Receiver operating in LAN is configured using software IPcomControl v4 on a 32/64 bit computer with OS MS Windows Win7/8/8.1/10. Several computers with software IPcomControl v4 may be connected to the receiver at once. Number of connections is limited by license that may be viewed by clicking **Help** in software IPcomControl v4.

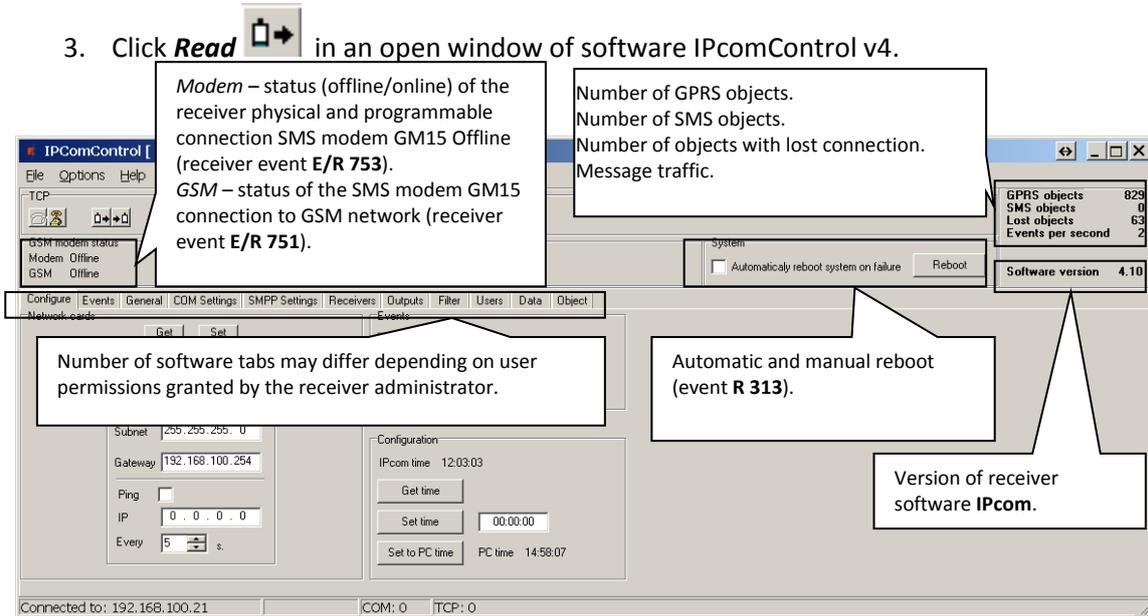
1. Run software IPcomControl v4. Enter the IP address of the LAN receiver network adapter card, e.g., 195.15.184.138, when prompted and click OK.



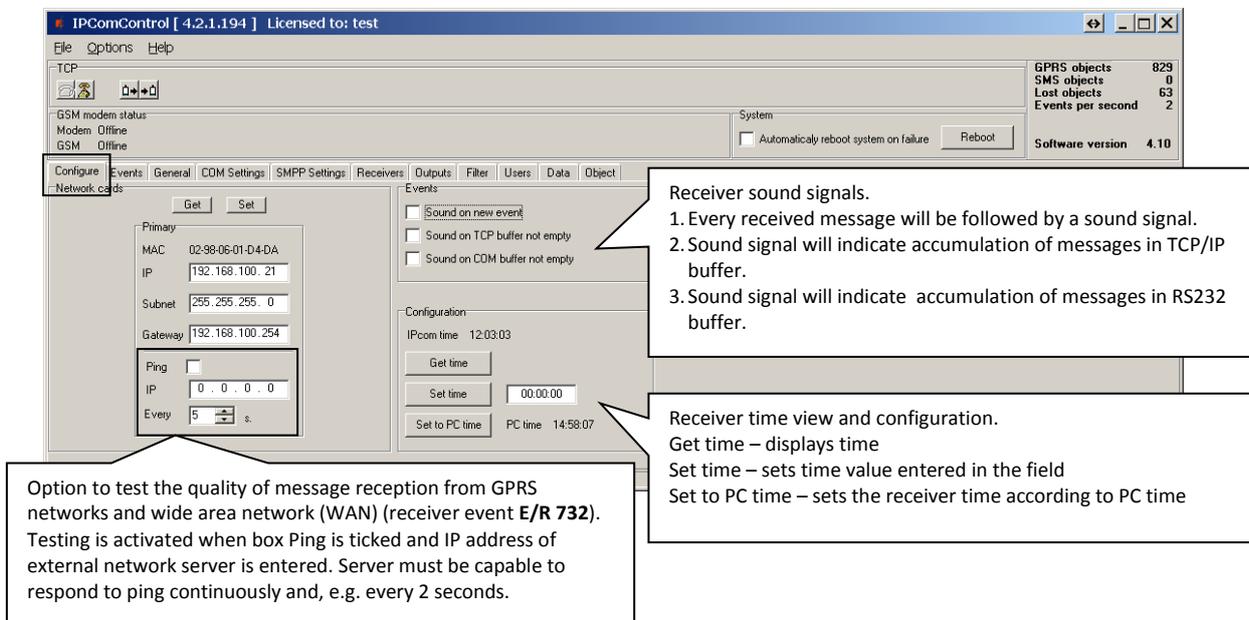
2. Enter the User name (*administrator*) and password (*admin*) when prompted. Click **Login**.



3. Click **Read**  in an open window of software IPcomControl v4.



**C. Configuring remote server IP address for communication channel testing, receiver sound signals and clock (tab Configure).**



**D. List of receiver events. Disabling generation of event messages (tab Events).**

Enabled	Event name	Event code
<input checked="" type="checkbox"/>	Lost GPRS connection	E 762 99 000
<input checked="" type="checkbox"/>	Restored GPRS connection	R 762 99 000
<input checked="" type="checkbox"/>	Lost GSM connection	E 752 99 000
<input checked="" type="checkbox"/>	Restored GSM connection	R 752 99 000
<input checked="" type="checkbox"/>	Massive connection lost	E 704 99 000
<input checked="" type="checkbox"/>	Massive GPRS connection restore	R 764 99 000
<input checked="" type="checkbox"/>	Massive GSM connection restore	R 754 99 000
<input checked="" type="checkbox"/>	WAN ping timeout	E 732 99 001
<input checked="" type="checkbox"/>	WAN ping restored	R 732 99 001
<input checked="" type="checkbox"/>	GSM modem no response	E 753 99 000
<input checked="" type="checkbox"/>	GSM modem responded	R 753 99 000
<input checked="" type="checkbox"/>	GSM connection is offline	E 751 99 000
<input checked="" type="checkbox"/>	GSM connection is online	R 751 99 000
<input checked="" type="checkbox"/>	WAN cable disconnected	E 733 99 001
<input checked="" type="checkbox"/>	WAN cable connected	R 733 99 001
<input checked="" type="checkbox"/>	Receiver no heart beat	E 713 99 001
<input checked="" type="checkbox"/>	Receiver heart beat restored	R 713 99 001
<input checked="" type="checkbox"/>	System rebooted	R 313 99 000
<input checked="" type="checkbox"/>	System started	R 305 99 000
<input checked="" type="checkbox"/>	GSM device mode	R 755 99 000
<input checked="" type="checkbox"/>	Connection trouble	E 350 99 000
<input checked="" type="checkbox"/>	Connection restore	R 350 99 000
<input checked="" type="checkbox"/>	Output connection trouble	E 350 99 000
<input checked="" type="checkbox"/>	Output connection restore	R 350 99 000
<input checked="" type="checkbox"/>	System peripheral trouble	E 330 99 000

Enable/disable generation of an event message

Event name

Event code

Upon occurrence of an event listed in the window above, a message will be formed and sent to the monitoring software. Reporting of unwanted events can be turned off by ticking off the check box.

Configuration of a receiver allows to change: Event code, Partition's number and zone. For some of the messages the output channel identification is set automatically. For detailed list and conditions for generating an event messages refer to chapter X. Receiver event messages.

**E. Controlling communication with GPRS and GSM objects (tab General).**

Receiver event E762 *GPRS connection lost* will happen if no signal is received via GPRS jvyks for time T:  
 $T = \text{GPRS PING interval} \times \text{GPRS Multiplier} + \text{Tolerance}$   
 Receiver event R752 *GSM connection restored* will happen if no signal is received via SMS for time T:  
 $T = \text{SMS PING interval} \times \text{GSM Multiplier} + \text{Tolerance}$

Receiver event R762 *GPRS connection restored* will happen if N signals will be received via GPRS in time T:  
 $T = \text{GPRS PING interval} \times \text{GPRS Multiplier}$   
 Receiver event R752 *GSM connection restored* will happen if N signals will be received via SMS in time T:  
 $T = \text{SMS PING interval} \times \text{GSM Multiplier}$

Receiver event E704 *Massive Communication loss* will happen if connection with N objects will be lost at the same time, e.g. for 1 second.  
 Receiver event R764 *Massive GPRS communication restore* will happen if GPRS connection with N objects is restored at the same time, e.g. for 1 second.  
 Receiver event R754 *Massive GSM restore* will happen if GSM connection with N objects is restored at the same time, e.g. for 1 second.

**F. Setting operation mode of COM ports (tab *COM settings*).**

Port	Operation mode	Baud rate	Data bits	Stop bits	Parity	Flow control
COM0	Trikdis	9600	8	1	None	None
COM1	Input	9600	8	1	None	None
COM2	Input	9600	8	1	None	None
COM3	Output	9600	8	1	None	None
USB0	Input	9600	8	1	None	None
USB1	Input	9600	8	1	None	None
USB2	Input	9600	8	1	None	None
USB3	Input	9600	8	1	None	None

COM – name of DB9 connector; USB – name of insertable adapter card slot. Programmable receivers of the traffic that is received through these ports may be added in tab *Receivers*.

Operation mode of the port. Receiver RM14 will operate as a concentrator of messages received by other receivers, i.e. it will direct message traffic received through Input ports to Output if Input is chosen. Output – RS232 port for directing data to the message monitoring software..

Physical port parameters. These parameters must match the settings of corresponding ports of other connected receivers.

Port name:

COM0 – Integrated SMS receiver data port. Operation mode must be set to “Trikdis” .

COM1...COM3 – Receiver RS232 ports.

Card\_1...Card\_4 – receiver card sockets.

**G. SMS messages using SMPP protocol (tab *SMPP settings*).**

SMPP – protocol for SMS message transmission using TCP/IP communication, i.e. it allows receiving SMS messages sent by Trikdis message transmission modules via LAN instead of integrated SMS modem.

Receiver name	IP	Port	Username	SMPP password	Receiver status
Click to add new SMPP receiver					

Number of receivers that may be added by double-clicking on cell *Click to add new SMPP receiver* is limited by license. GSM network provider provides the IP address for connecting the receiver to the SMS centre server, port number, user name and password.  
**Note:** SMPP receiver identification marks are set in tab *Receivers* in order for the message monitoring software to identify that a message was received from SMPP receiver.

## H. Adding receivers and setting their parameters (tab *Receivers*).

Double-click on cell *Click to add new receiver* to assign a name and number to a newly added receiver. Receiver number is included in messages transmitted to the message monitoring software. Number of receivers that may be added is limited by license.

Double-click on cell *Click to add new line* to describe message traffic received by an added receiver: assign a port (Port or COM input), line number, protocol, encryption password and output. Output parameters may be set in tab *Outputs*.  
**Note:** assigned line number will be included in messages transmitted to message monitoring software.

All the events listed in the “Events” tab are received from chosen IPcom channel and redirected to chosen output port. In order to, receive messages sent from secured object via TCP/UDP protocols a separate receiving channel must be created. Data stream received from this channel are redirected to the chosen output port.

Data stream redirection parameters:

- Line number – specify line number
- Protocol – specify data stream transfer protocol
- Port – specify input port
- COM input - specify physical input port
- SMPP input – specify SMPP server parameters
- Encryption password – specify a six digit encryption key for incoming data stream
- Output – specify output port for data stream, which parameters are set in “Output” tab

## I. Directing messages to the message monitoring software (tab *Outputs*).

Double-click on cell *Click to add new output* to add and describe message output ports of message monitoring software. Number of ports that may be added is limited by license.

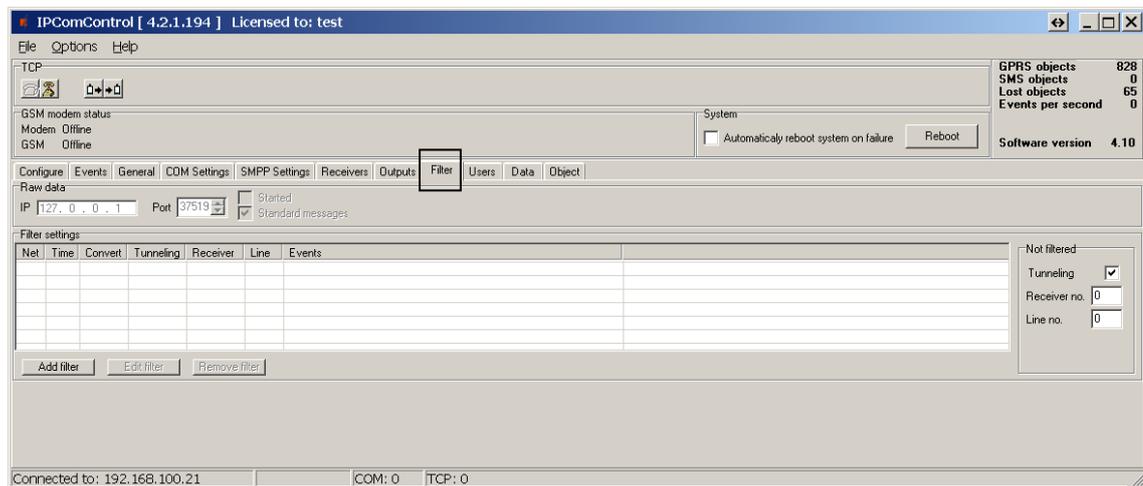
Output type – message monitoring software communication protocol.  
 IP – IP address of message monitoring software computer.  
 Port or COM port – message monitoring software port number.  
 Heartbeat enabled – enables testing of message monitoring software communication channel.  
 Heartbeat interval – time interval for sending testing signals.  
 Mode – message protocol.  
 Identifier – communication channel identification number. It allows to identify the channel affected by communication loss.  
 Buffer size – size of message buffer.  
 Enabled – enables operation of added port if ticked.

Output parameters for sending messages to the monitoring software:

- Name – specify port name
- Output type – specify connection type with the monitoring software: TCP or COM
- IP – specify monitoring stations IP address
- Port / COM port – specify output port number
- Heartbeat enabled – enable polling with the monitoring software
- Heartbeat interval – specify the period for polling
- Mode – specify the protocol of messages
- Identificator – specify the identification number for the channel. It will allow to identify the channel upon losing the connection with it.
- Buffer size – specify the message buffer size
- Enable – enables the created channel to function.

#### J. Message filtering (tab *Filter*).

IP address to which all received messages are additionally directed may be set in tab *Filter*.



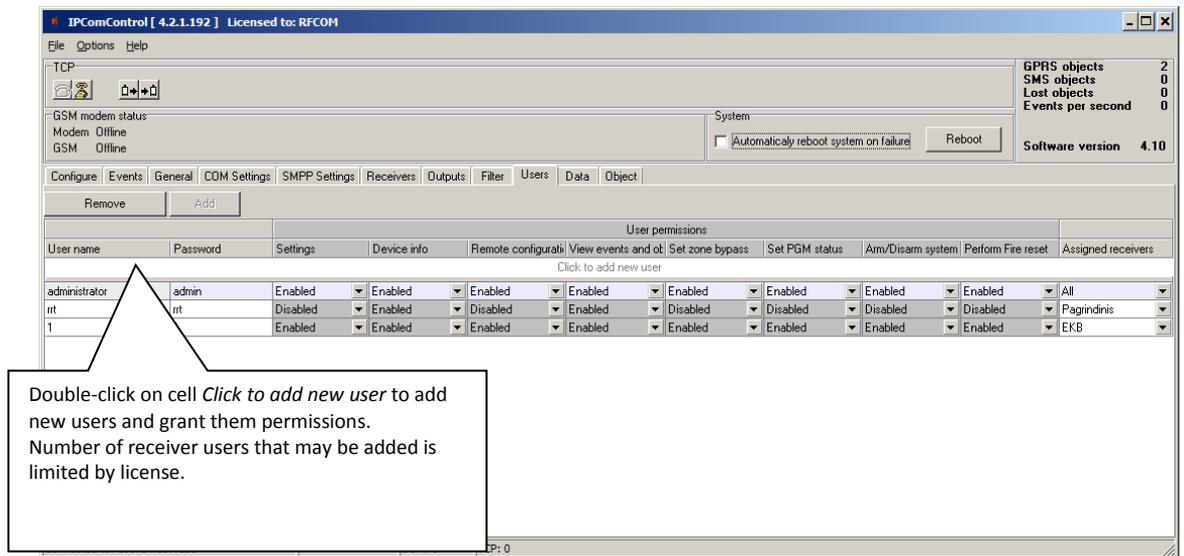
IP address and port number to which all received messages will be sent are entered in field *Raw data*. Messages will be sent to the specified IP address without processing when box [Started] is ticked. Messages will be changed according to protocol Contact ID if box [Standard messages] is ticked.

Message filtering parameters are set in field *Filter settings*. Click *Add filter* to open tab *Filter settings*. Specify the rules for message transmission to the message monitoring software:

- Enter the network number in box *Network*. Only those messages with matching receiver number and network number will be filtered;
- Enter tolerance time for the same signal (or repeated tolerance signals) in box *Time*;
- Enter the receiver number displayed in the processed message in box *Receiver no*;
- Enter the receiver line number displayed in the processed message in box *Line no*;
- Check box *Convert* in order to change the structure of filtered messages;
- Check box *Tunneling* to keep the structure of filtered messages;
- Enter special event codes used to ignore messages re-transmitted in RAS-2M system in box *Events one per line*;
- Click OK to confirm entered values;
- Several different filters may be set up and used.
-

Messages are transmitted to message monitoring software using receiver and line numbers indicated in tab *General* if box *Tunneling* is checked in field *Not filtered*. Messages are transmitted with indicated receiver and line number if box *Tunneling* is not checked.

#### K. User permissions (tab *Users*).



#### User permissions parameters:

- User name – specify the user name
- Password – specify the user password
- Settings – specify permission to configure receiver software IPcom.
- Device info – specify permission to view receiver information about objects.
- Remote configuration – specify permission to remotely configure message transmission module and update its firmware.
- View events and objects – specify permission to open software IPcomControl v4 tabs Data and Objects.
- Set zone bypass – specify permission to send control commands to Trikdiss control panel installed in a secured object in order to activate or deactivate Zone bypass mode in a specific zone.
- Set PGM status – specify permission to switch message transmission module PGM output status remotely.
- Arm/Disarm system – specify permission to send control commands to Trikdiss control panel installed in a secured object in order to arm or disarm the alarm system.
- Perform Fire reset – specify permission to send control commands to Trikdiss control panel installed in a secured object in order to automatically reset the operation of connected smoke sensor.
- Assigned receivers – specify the receivers for which the user permissions apply

#### User permission options:

- Enable – Permission enabled.
- Disable – Permission disabled.
- Read only – Permission to only read provided information.

## IX. Resetting default parameters

In order to reset default receiver network adapter card IP addresses, press and hold RESET switch until a sound signal is heard.

## X. Receiver event messages

Receiver generates and sends a message to the monitoring software in case of any of the receiver events. Messages are sent with set receiver, line numbers and object identification numbers:

- 1) Received from the device from object, if event is connected with the object.
- 2) 0000, if event is connected with general function events.

List of receiver RM14 event codes

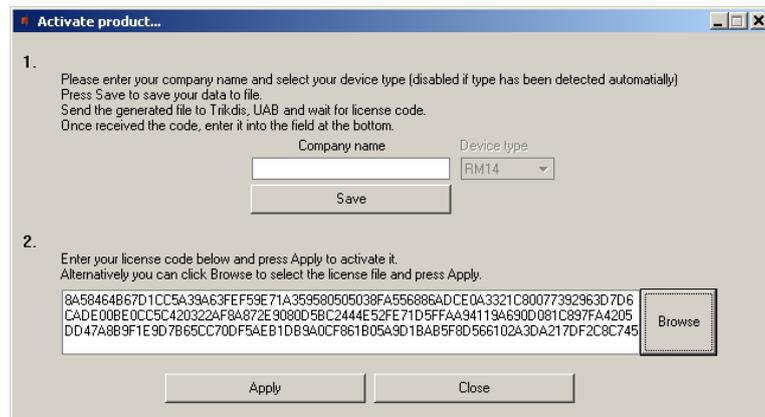
Event CID code	Event name	Receiver message values		Conditions for event message generation
		Object ID number	Zone number	
E301	AC Power loss	0000 Receiver ID	000	Power supply loss for 10 seconds or more
R301	AC Power restore	0000 Receiver ID	000	If power loss (CID E301) was recorded and power restored for 10 seconds or more.
R305	System started	0000 Receiver ID	000	IPcom software restarts
E308	System shutdown	0000 Receiver ID	000	Power loss from main and back-up battery and passed 1 minute waiting period.
E311	Battery missing	0000 Receiver ID	000	Integrated battery has been disconnected for over 1 minute.
R311	Battery connected	0000 Receiver ID	000	Integrated battery was disconnected (CID E311) and is reconnected for over 1 minute.
R313	System rebooted	0000 Receiver ID	<input checked="" type="checkbox"/>	A command to reboot the system was generated using IPcomControl. Equipment failure to receive data via COM port recorded.  Zone number indicates port ID.
E330	System peripheral trouble	Transmission module ID	Number of repeating modules	a) New module appears on a system having an object ID of already existent module. b) A new module's unique number is not in the system.
E350	Connection trouble	Transmission module ID	000	a) Transmission module is working in a GPRS mode, no messages were received from it within a set time period. b) Transmission module is working in GSM mode, no messages were received from it within a set time period. Note: Mass connection lost was not recorded (CID E704)
R350	Connection restore	Transmission module ID	000	a) Transmission module is working in a GPRS, connection trouble (CID E350) was recorded, but Massive GPRS connection restore (CID R764) was not recorded and a set amount of messages were received from the module, stating that connection was restored. b) Transmission module is working in a GSM, connection trouble (CID E350) was recorded, but Massive GSM connection restore (CID R754) was not recorded and a set amount of messages were received from the module, stating that connection was restored.
E350	Output connection trouble	0000 Receiver ID	<input checked="" type="checkbox"/>	Data from a receiver to the monitoring software is transmitted via TCP protocol and connection with the software is lost. Zone number indicates port ID.
R350	Output connection restore	0000 Receiver ID	<input checked="" type="checkbox"/>	Data from a receiver to the monitoring software is transmitted via TCP protocol and Output connection trouble was recorded (CID E350) and receiver connected back to the software. Zone number indicates port ID.

E704	Massive connection lost	0000 Receiver ID	<input checked="" type="checkbox"/>	There was a set number of connection losses with GPRS or GSM transmission modules. Zone number indicates port ID.
E712	Receiver i/o error	0000 Receiver ID	<input checked="" type="checkbox"/>	An error occurred while reading data from the port. Zone number indicates port ID.
R712	Receiver i/o restored	0000 Receiver ID	<input checked="" type="checkbox"/>	A Receiver i/o error (CID E712) was recorded and data was successfully read from the port. Zone number indicates port ID.
E713	Receiver no heart beat	0000 Receiver ID	<input checked="" type="checkbox"/>	No messages received from COM receiver for a minute. Zone number indicates port ID.
R713	Receiver heart beat restored	0000 Receiver ID	<input checked="" type="checkbox"/>	No signal from COM receiver recorded (E713). At least one message received from COM receiver. Zone number indicates port ID.
E714	Receiver card unplugged	0000 Receiver ID	<input checked="" type="checkbox"/>	Receiver card was unplugged. Zone number indicates port ID.
R714	Receiver card plugged in	0000 Receiver ID	<input checked="" type="checkbox"/>	Receiver card was plugged in. Zone number indicates port ID.
E732	WAN ping timeout	0000 Receiver ID	<input checked="" type="checkbox"/>	No response from PING destination (e.g. remote server) for three times in a row. Zone number indicates port ID.
R732	WAN ping restored	0000 Receiver ID	<input checked="" type="checkbox"/>	Loss of communication with network adapter card recorded (E732). Network adapter card received a response from PING destination (e.g. remote server). Zone number indicates port ID.
E733	WAN cable disconnected	0000 Receiver ID	000	Network cable removed from Ethernet connector.
R733	WAN cable connected	0000 Receiver ID	000	Network cable plugged back into Ethernet connector.
E751	GSM connection is offline	0000 Receiver ID	000	GSM modem alarmed about lost connection to GSM network by a service message. At least one minute passed after system activation.
R751	GSM connection is online	0000 Receiver ID	000	Connection loss between GSM modem and GSM network recorded (E751); GSM modem alarmed about restored connection to GSM network by a service message;
E752	Lost GSM connection			N/A
R752	Restored GSM connection			N/A
E753	GSM modem no response	0000 Receiver ID	000	No response received from GSM modem for 10 seconds;
R753	GSM modem responded	0000 Receiver ID	000	No response form GSM modem (E753); At least one response received from GSM modem;
R754	Massive GSM connection restore	0000 Receiver ID	000	In a set time period a set amount of GSM connection restores occur.
R755	GSM receiver mode	Transmission module ID	<input checked="" type="checkbox"/>	a) Transmission module is working in GPRS mode, but any SMS message is received b) Transmission module is working in GSM mode and FIRST message is received c) Connection trouble (E350) was recorded and a set number of GSM messages were received, stating that GSM connection is restored. Zone number indicates port ID.
E762	Lost GPRS connection	Transmission module ID	<input checked="" type="checkbox"/>	a) Transmission module is working in GPRS mode, the type of the module is known and within a set time period no messages were received from the module Note: Mass connection lost was not recorded (CID E704) b) SMS transmission is enabled, and an SMS message is received. Zone number indicates port ID.

R762	Restored GPRS connection	Transmission module ID	<input checked="" type="checkbox"/>	Transmission module is working in GPRS mode and a set number of messages were received, stating that connection is restored. Zone number indicates port ID.
R764	Massive GPRS connection restore	0000 Receiver ID	000	In a set time period a set amount of GPRS connection restores occur.

### XI. License activation

Parameters of the initial license can be changed (upgraded) by installing a new license. Go to *Options* → *Activate product* browse and select license file, which is in .lic format.



To install new license press the **Apply** button.

### XII. Warranty

According to the user manual of the receiver and general regulations for installing electrical equipment, the manufacturer provides a 24-month warranty to the installed and operated product. Warranty coverage starts at the moment of the product sale and purchase agreement, i.e. date of issue of invoice or fiscal receipt.