TRIKDIS

Communications for security

Centralized monitoring software
Monas-NET

(Version 1.56)

User manual

Content

1. Application of the software MONAS-NET

Software **Monas-NET** is network-based software of centralized monitoring applied in central monitoring stations for reception and displaying of alarm messages, received from protected objects via different communication channels.

Monitoring software Monas-NET receives messages from security or fire protection systems and displays them including data available in data bases of the objects under protection. The software provides personnel with information on the monitor in a form comfortable for monitoring and enables to react operative towards current situation.

The software enables operator to record notes on reaction course automatically and/or under established timetable tracking switching on/off security system; it automatically observes well-timed reception of signals on communication test and notifies in a case of their absence. The software also enables to prepare precise report of received messages and actions of personnel.

2. Components of the software

Software *Monas-NET* is comprised of several components:

- Data base control application *MySQL ver.4.1;*
- Application *Monas-NET server* ;
- Application *Monas-NET client* ;

Software MySQL controls the whole data base of protected objects and received messages.

Software Monas-NET server provides reception of information from peripheral sources and communication between softwares *MySQL and Monas-NET client.*

Monas-NET client displays received information including information of data bases. Working places with the software *Monas-NET* client is restricted in terms of local network only.

3. PC requirements

Minimal PC requirements for server *MySQL;*

- Pentium 4 2GHz processor;
- Windows 2000, XP, sever 2003 OC;
- 512 MB of RAM;
- 4GB of free space on a hard disk drive;

Minimal PC requirements for operation with the softwares *Monas-NET server* and *Monas-NET client:*

- Pentium 4 2GHz processor;
- Windows 2000, XP, sever 2003 OC;
- 512 MB of RAM;
- 50MB of free space on a hard disk drive;

Computers should operate in local network. PC with installed application *Monas-NET client* must be provided with sound card and loudspeakers.

In order to print reports printer must be connected to.

4. Features and properties of the software

Software *Monas-NET* enables to create data base for protected objects, to add new information; the software displays received messages on the monitor including data available in data base, automatically observes well-timed reception of signals of communication test as objects are being closed and opened as well as enables to enter reaction notes and to conclude full report of received messages and actions of personnel.

Software *Monas-NET:*

- automatically displays received messages on the monitor including data available in data base;
- reception of messages is accompanied with different sound signals;
- provides various possibilities for personnel to use the software;
- enables personnel to add notes of reaction;
- automatically controls well-timed reception of messages on communication test with protected object;
- automatically observes switching security system on/off for indicated objects;
- records time of message reception;
- records personnel's reaction time towards received message;
- stores received messages and reaction notes in archive;
- automatically following set time reminds personnel about marked events;

Software *Monas-NET* enables:

- to receive information from different equipment, operating via various communication channels in different protocols;
- to display received information on the monitor together with data available in data base;
- to create and to manage data base for protected objects;
- to set required sequence and components of information displayed on the monitor;
- to distribute information flows via various work places;
- to channel information flow into other software or PC;
- to enter summer/winter time;
- to carry out operative data search in data base;
- to prepare accurate report about events and reactions towards these events;
- periodically to copy data base and to save it to specified storage media;
- to select language (LT, RU, EN);

4.1. Possibilities and functions of personnel

Different functions and possibilities of software use may be assigned to personnel of monitoring station. These functions and possibilities are set by administrator under different passwords. Conditionally several levels for software use may be emphasized:

- software administrator – responsible for inner computer networks and interoperability with monitoring software;
- Head of the station – it is an employee, responsible for proper creation of data base, is supplements, organization of duties of personnel and drafting of reports.
- operators – these are employees, who immediately reacts to received messages and controls actions of crews;
- crews – it is mobile groups of personnel, reacting towards alarms messages;
- technician of the station – it is an employee responsible for working capacity of technical and security equipment;

Depending on activities of security station, other functions may be assigned to personnel as well. Following set passwords, it is possible to define when and which employee was involved in software using.

4.2. Communication test and control

Communication test with protected object (test) is being performed automatically. Order of control is included in a form of a certain object:

- Synchronous test – test message should be received following set time value with allowed deviation;
- Asynchronous test – test messages should be received not less frequently as set time interval;
- Under necessity, test must be switched off.

If test message is received timely, it is automatically stored at window of processed messages. If test message has not been received, the software will notify an operator. If test message has been received in bad time, software sends inquiry due to test time change and the operator singly makes a decision.

4.3. Control of switching on/off the security system

Control of switching on/off the security system is being carried out for these objects, which control is available in object form. Control may be switched off completely; observing automatically of security system status or well-timed switching on/off may be performed. Head of the station may easily set required control order for each day of a week, considering days off.

Under reception of messages regarding security system on/off, window of received message includes status of protected object (on/off/unknown). General state of several objects is visible in object list.

If control of well-timed switching on/off of security system is being carried out and if a message is received timely, software will display it as indicated in object form. If message is received untimely, software will notify about falling behind the schedule.

4.4. Record of reaction notes

The software has window of processed messages, where messages requiring additional processing are being put. These messages may be additionally sent by personnel including reaction notes. Notes are selected from list or are entered manually. Time of notes entering is being recorded automatically, which are displayed during drafting of reports.

4.5. Mode of special monitoring

Mode of special monitoring may be set for a certain object. This mode should be set head of the station for a certain time period. Message, received in mode of special monitoring is considered as alarm message and will be displayed as alarm message.

4.6. Reminders

Operator may include reminders in a window of processed message. When the message will be repeated following set time period.

4.7. Message priorities and sensibility time

Priorities are assigned for received messages (sequence of displaying on the monitor under reception of several messages simultaneously).

The software enables to set insensibility time towards the same message. This enables to receive a message as they come from the object and to display on the monitor only first. Under reviewing of history or reporting, displaying of messages within repetitions or without them is available.

4.8. Storage of data base

Administrator sets information, how frequently and to which media storage device data base will be stored. Application *Monas-NET server creates list of stored data including:* time of copy creation, periodicity of storage and drive.

5. Installation of the software

Software of centralized monitoring should be installed to PC following user guide of *Monas-NET*. Installation and network setups should be performed by administrator following used guide of the software.

One of computers is considered as server. It includes software components *My SQL* and *Monas-NET server* and reception equipment is being connected to. Application *Monas-NET client* is installed in other computers.

In small stations, having small number of objects for protection, all softwares may be installed in one PC.

6. Activation/deactivation of the software

1) Activation of software *Monas NET server.*

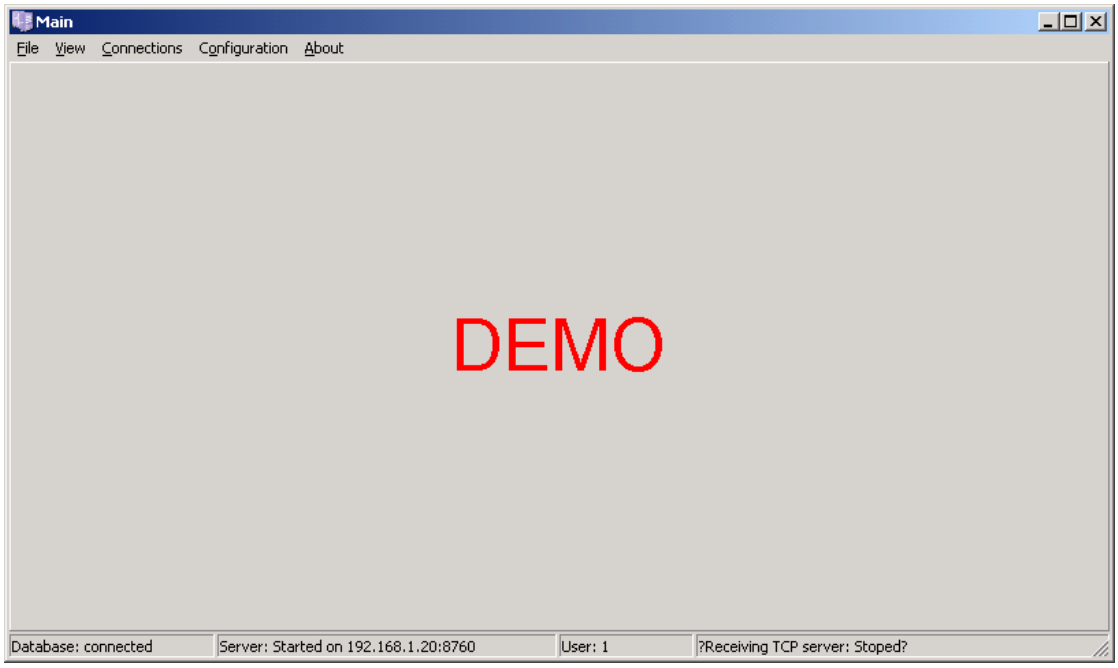
Double click 

icon. Window below will be displayed.

Enter data:

Short name: 1
Password: adm

Short name and passwords are necessary for administrator due to first time launch of the application and changing of its settings. After pressing [OK] Main Window of the application *Monas NET server* will be displayed.

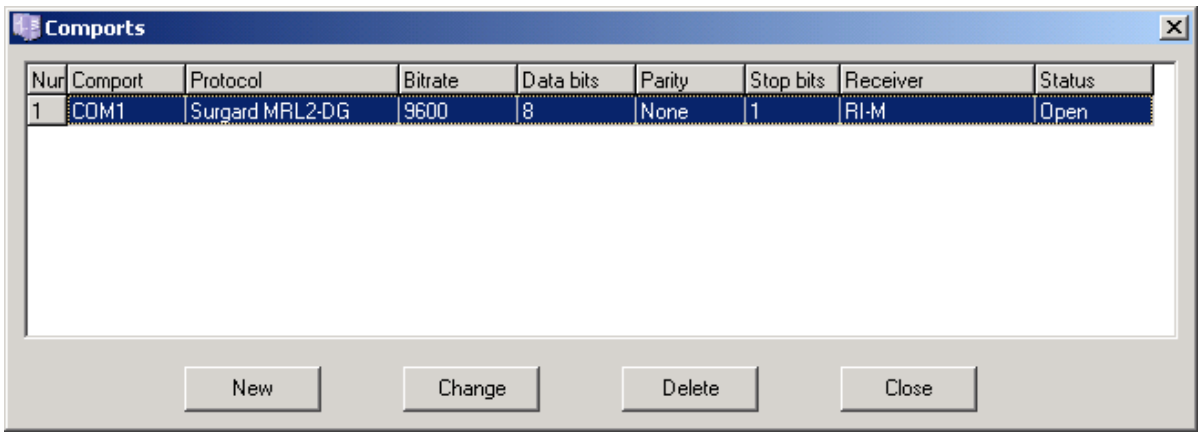


If application is being activated by the operator password is not necessary. Press [Cancel]. After pressing the key, Main Window of the application *Monas NET server will be displayed.*

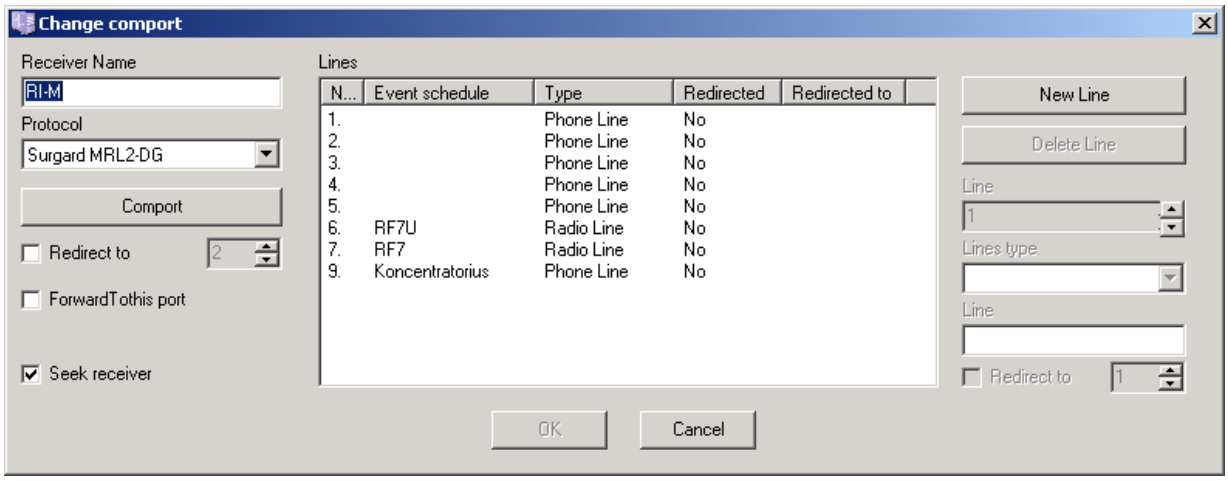
It is important to activate server and data base. Activation is seen in lower part of server window. If due to a certain reason server has not been activated, it may be done as follows: ***Connections-Server-Activate server.***

Go to ***Configuration – Ports*** in order to activate window of ports setup and to enter necessary parameters of ports.

After selecting proper port, by using command [*Change*] it is possible to modify its settings, to delete it [Delete] or to add new [New].



Press key [Change] and set necessary parameters of reception equipment and communication channels in the window [Change port settings].

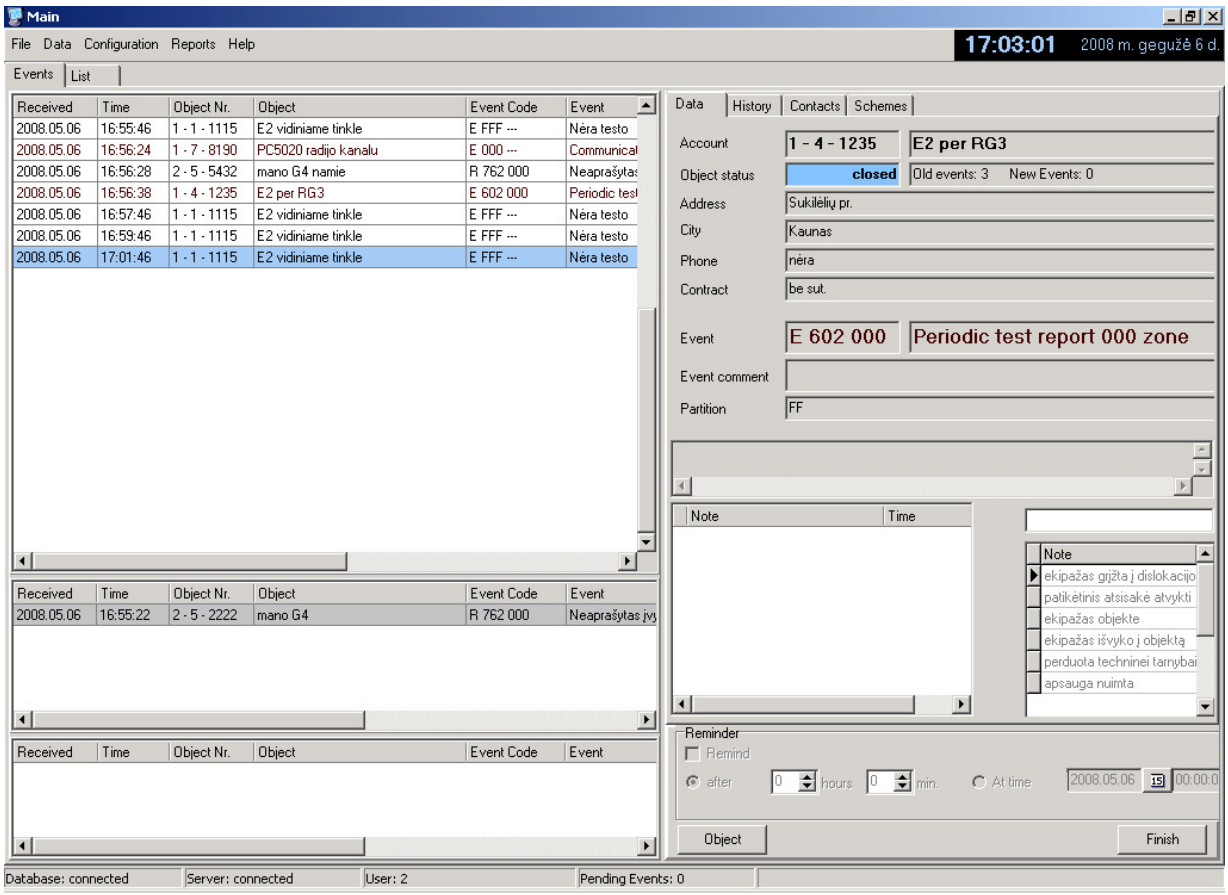


If necessary to observe signals, incoming via serial port, select ***Info—Data of COM port*** in the Main Window. Select required port in displayed window.

Next step is to activate the application *Monas-NET client*. It may be installed in the same server or in any other PC, operating via the same network.

Click icon  Monas NET client.lnk and enter short name of the operator and password, which are provided by the administrator of the station. Window below will be displayed.

Main Window of the application *Monas NET client* is comprised of four parts.



Current data and time is indicated above. The application uses PC time.

The first part of the window is called window of messages. It displays received message with object data, including object state and field for notes. In the line *Comments* additional comments of the event are displayed.

In the lists *History, Contacts, Schemes* or by using keys F5…F8 it is possible to review detailed information. Key object allows fully retrieving a form of the object.

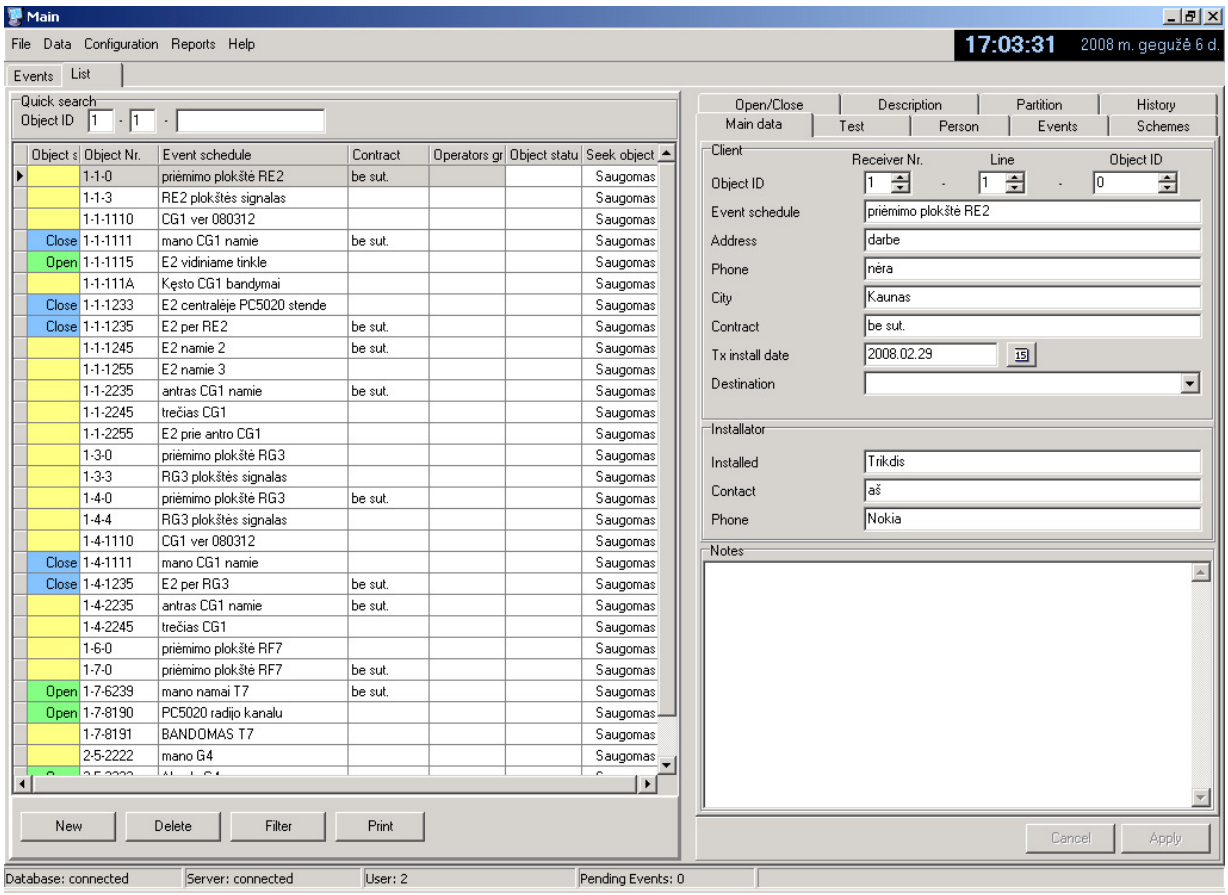
In the left side fields are called: window of received messages (lower), window of messages being processed (medium) and window of processed messages (upper).

In lower window messages are displayed following indicated priorities. Messages with high priority are delivered for processing firstly. A message may be removed from lower window with double mouse click or it will be removed automatically after expiry of time (after 1-5sec.)

Messages available in medium window are subject to additional processing. Under necessity reaction notes are entered or operator waits for report of actions of crew. In medium window messages may be retrieved additionally including their processing.

Finally processed messages are stored in upper window. These messages may be retrieved but editing is unallowable. Messages not required for processing are stored in this window automatically.

3) Command List opens list of protected objects. It includes all entered objects; also it is possible to add new objects, to modify them or to delete. In this window you may review object state, to select filter and find information. New object form is entered in this window.



4) If a case of operator change, another operator can work in a same work place or working operator changes a place of work. End of shift is performed under command ***Functions – Off***. Window for confirmation will be displayed and if a key [Yes] is pressed another window prompts to enter short name and password.

Short name and password is being entered. Number of new operator is seen on lower line of the Main Window.

Analogous actions are performed in other work place.

5) Application is deactivated in inverted sequence. Firstly all applications of *Monas NET client are deactivated, later - Monas NET server.*

7. Basic control commands

Application *Monas-NET client* is controlled with the help of mouse and keyboard. Some control commands are presented below:

Functions → ***Clear*** - it is possible to clear a window from processed messages;

Functions → ***personnel -*** used for setting of personnel parameters;

Functions → ***Exit*** – used to end shift and to deactivate application *Monas-NET client*.

Data – used for creation of data base;

Configuration – used for setting of Main Window parameters;

Report – used for creation of reports;

Help –About –short info about the application is available.

The following keys may be involved in application use:

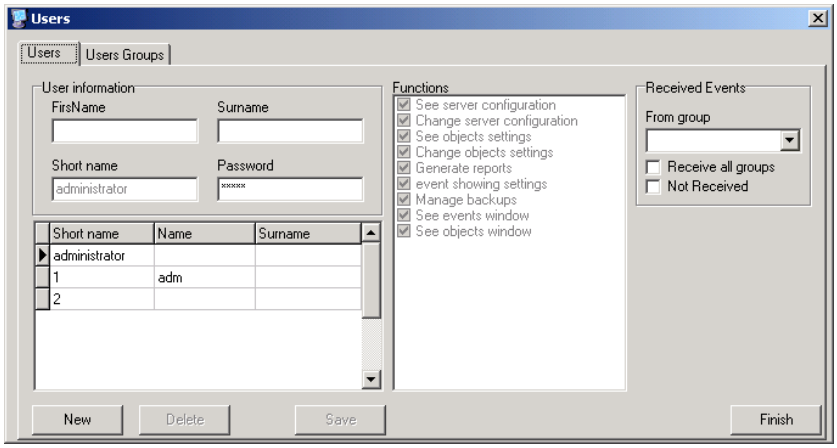
- Esc – to transfer a message to window of messages being processed. correspond to key [Repeat];
- Enter – to transfer a message to window of messages being processed. correspond to key [End];
- [space]- sound off;
- TAB – go to next section;
- F2—Screen refresh;
- F5...F8 – quick search in open window of messages:
  - F5 – data;
  - F6 – history;
  - F7—contacts;
  - F8 – schemes;

8. Creation of data base

8.1. Primary preparation of data base

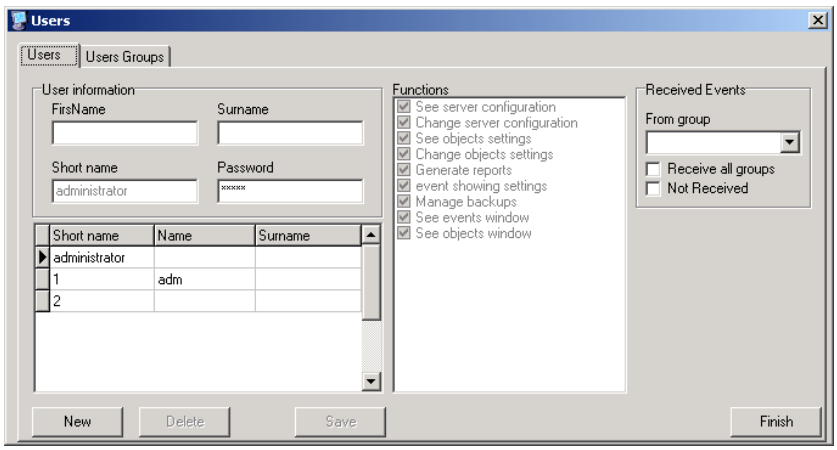
Data base for protected objects is necessary due to increasing of reaction efficiency. It contains detailed descriptions of objects, various schemes and reaction order. Data base should be completed by the head of a station.

Personnel function should be set by using command ***Functions - Personnel.*** Window of personnel function setting is opened.



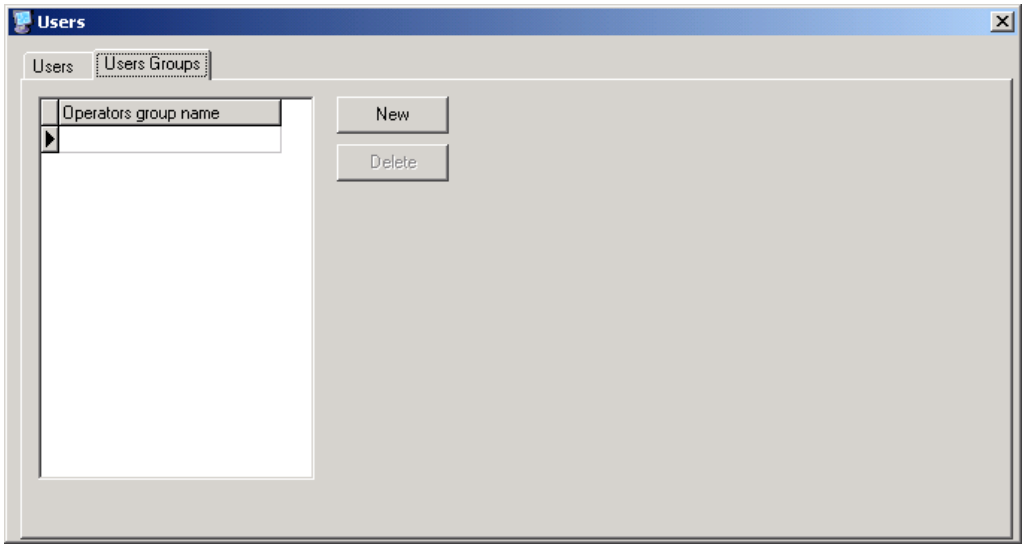
The Window includes data about personnel, functions being performed or admissible functions and under necessity groups of operators. The software allows entering new passwords [New] or to delete currently available [Clear]. The first password may be changed, but it can not be deleted.

To enter new operator press [New] data window will be displayed [Personnel...].



Complete indicated fields and specify functions being performed; to save entered data press [Save].

Groups of operators should be created in big stations, where messages are being distributed by separate operator following set criterion (territory, communication types, object numbers etc).

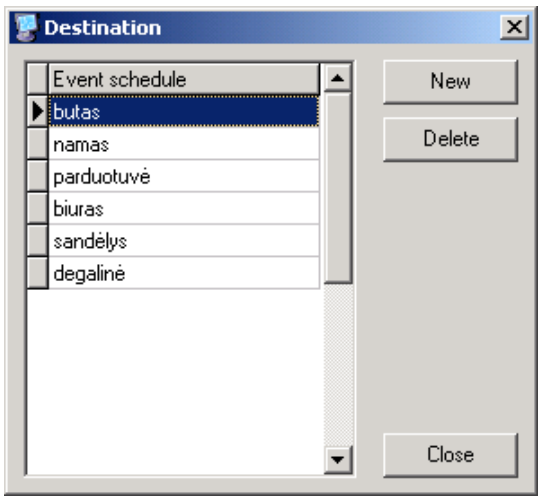


During installation of the software, a part of data base is completed immediately. It includes main reaction towards an event and entered standard message table. Another part of data base should be completed following certain conditions.

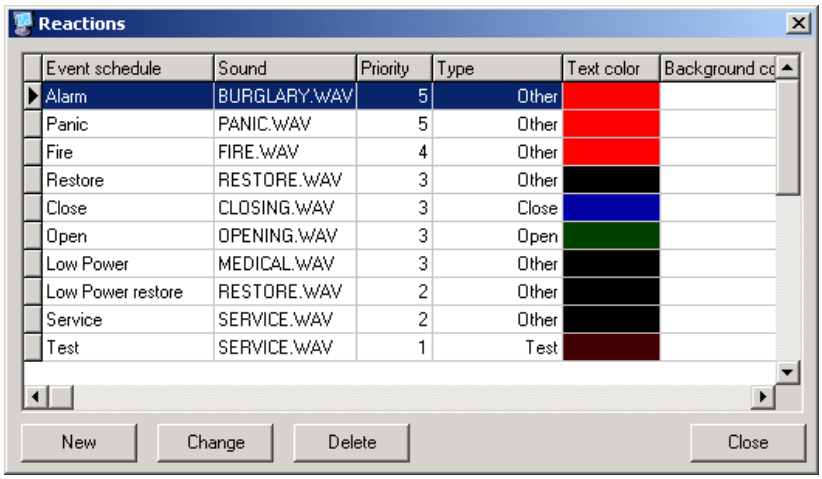
<u>Note</u>

Notes in data base are in EN. When other language is used, reactions and event examples must be translated to proper language.

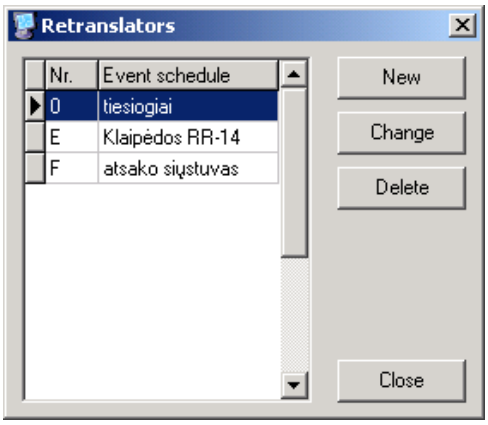
Commands ***Data – Destinations*** are used to open window of destinations of objects and to enter destinations. This enables to sort objects following destinations.



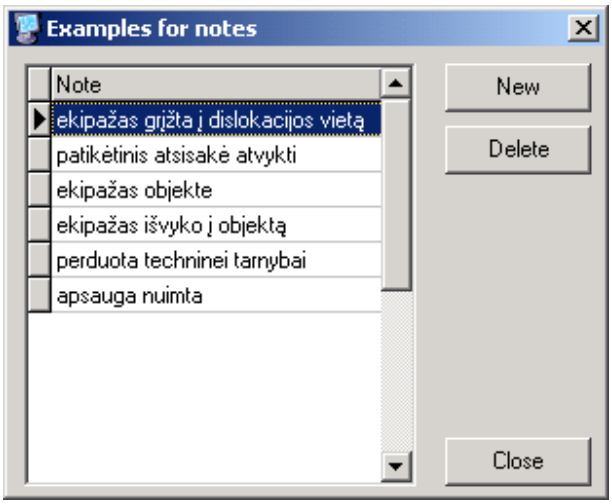
Commands *Data – Reactions* are used to open window of reactions to events. This will let assign various priorities, sound, colour to various messages.



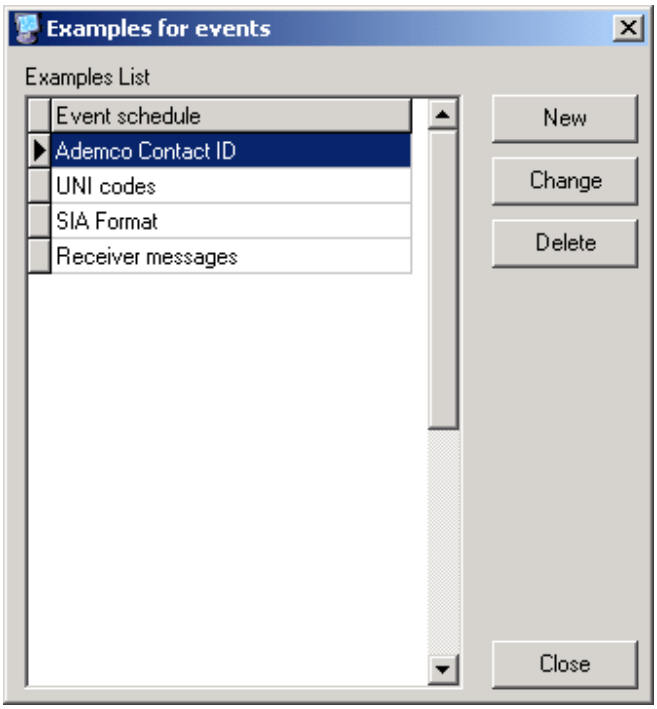
If radio communication is used go to *Data – Repeaters* in order to open list of repeaters. It contains names and internal (network-based) numbers of repeaters. This information is displayed in Main Window and allows tracking communication route of a message being received.



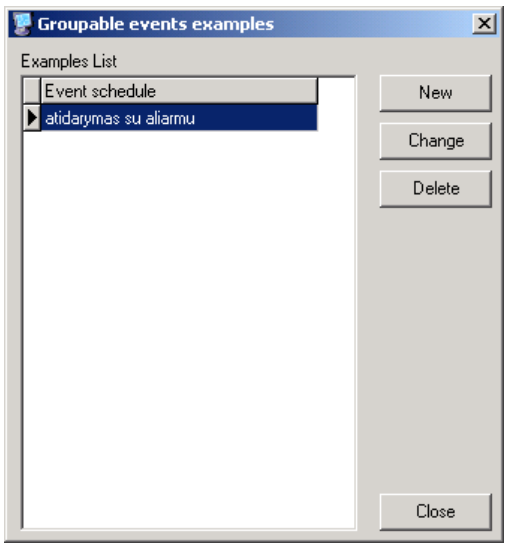
Command *Data – Note Example* is used to open window of typical notes of events. This will allow operator to rapidly find proper note under reaction. List may be supplemented with new notes as well as deletion of notes is possible.

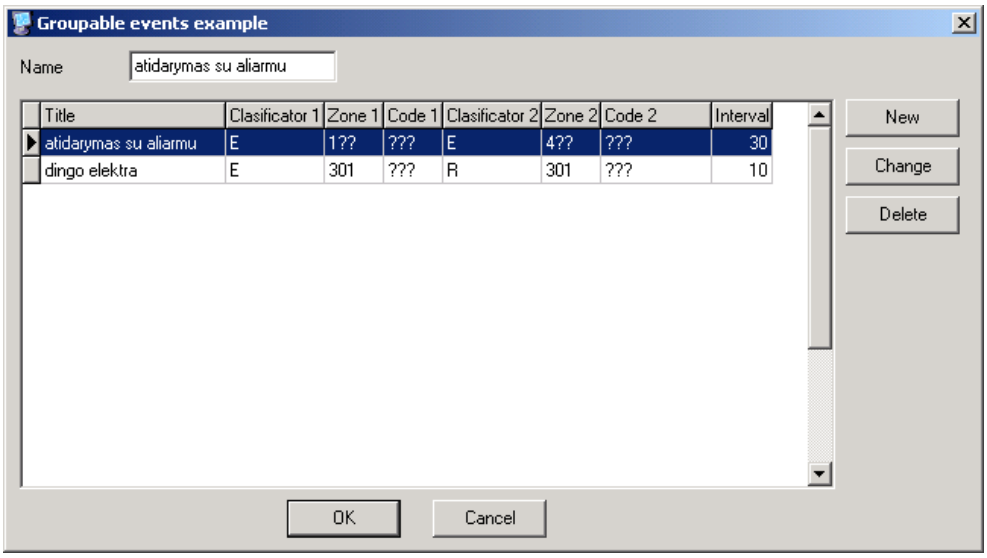


Command Data – Event Example is used to open window of event examples. It contains standard descriptions of events. This will allow head of a station to indicate the examples to display received messages. List may be supplemented with new examples as well as deletion of notes is possible. An examples itself also may be changed.

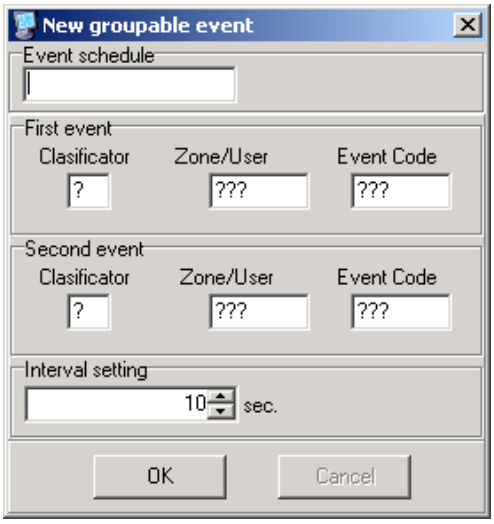


Command Data – Example of grouped messages is used to open window of grouped messages in order to establish grouped pairs. Under reception of grouped messages during set time period, the software automatically places them to window of messages being processed without disturbance of operator.

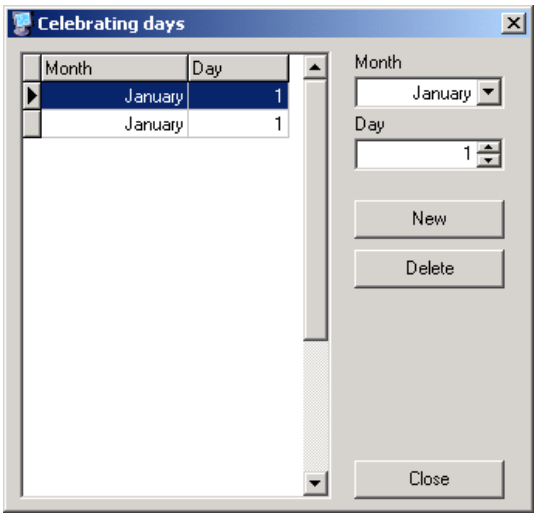




Go to [New] to create new pair of events.



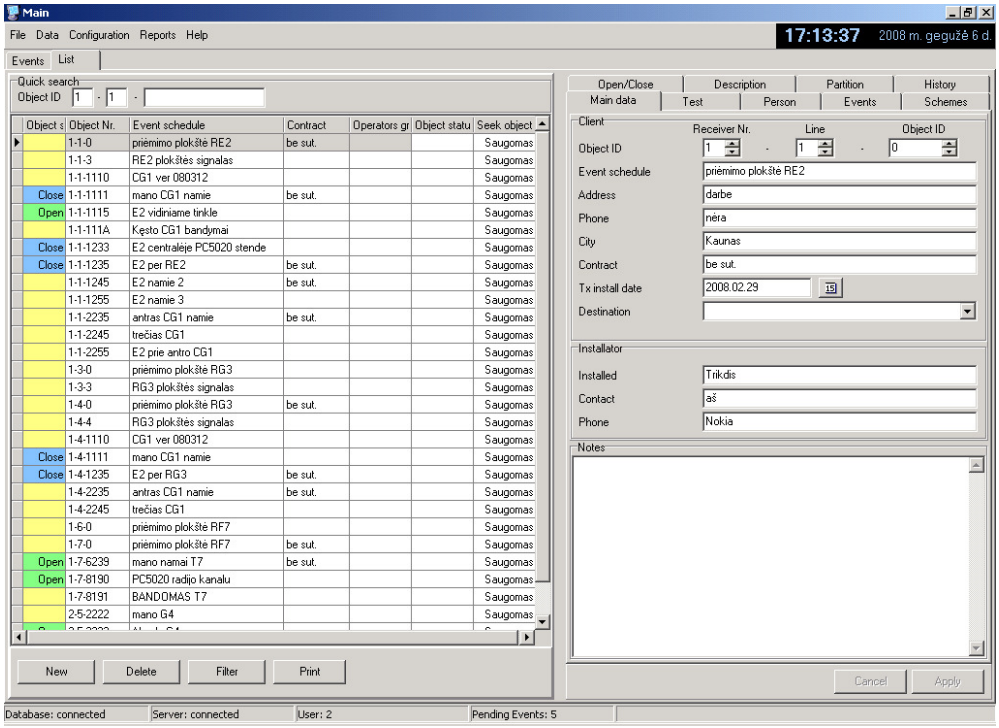
Command Data – Holidays is used to open list of holidays including days when on/off control is deferent as usually.



Command Data – Seasonable time is used to automatically change time test messages and on/off messages.

8.2. Formation of object form

Command List opens list of protected objects.



It includes all entered objects; also it is possible to add new objects, to modify them or to delete. Upon activation of filter it is possible to find necessary data or to

perform quick search of data of the object. New object form should be prepared in this window.

If object is not included in the list, the software marks it as „Unknown object".

In order to enter new object press key [New] and object form will be displayed. The form includes:

Device – indicates internal number of reception device, information id received from.

Line – indicates number of line of multi-channel receiver, indicating where reception module is built-in;

Object ID – indicates number of subscription module (ID), installed in protected object.

These three figures comprise full number of the object and enable to define communication channel.

Destination – Destination of the object;

Address – postal address of the object;

Telephone – contact telephone number of the object;

City – object-based city;

Agreement – number of agreement or owner of protected object;

Setup date – date of new information entering or new setup of the object;

Installer – name of the company, performing installation of the equipment;

Notes – notes special to a certain object;

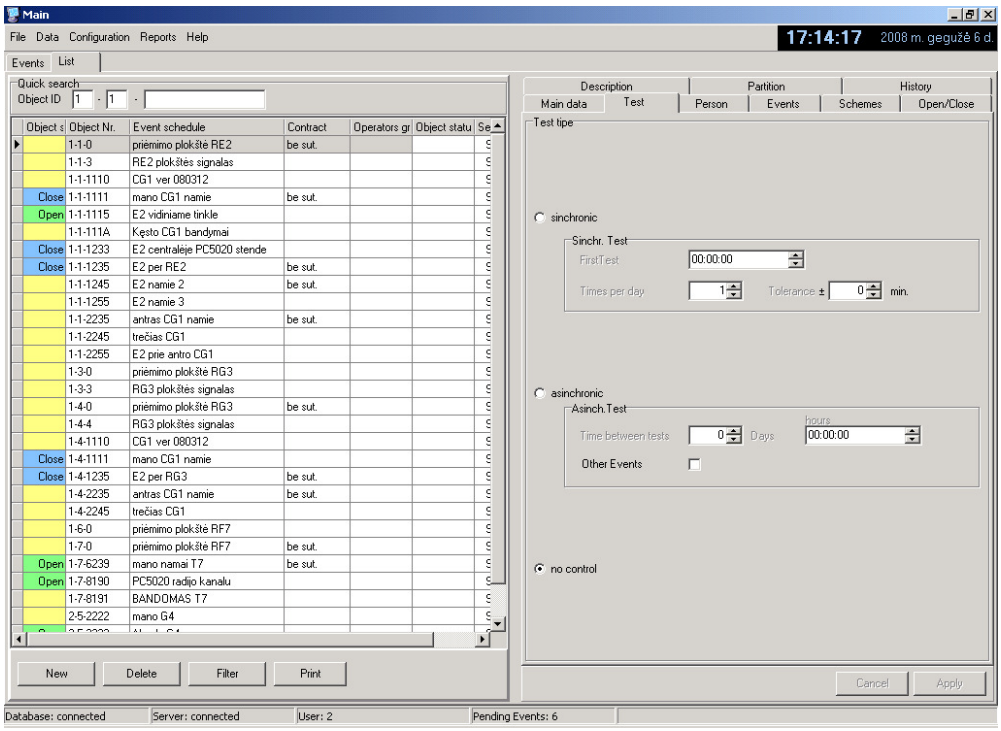
After entering new data (or part thereof) press [Apply]. The object will be included in object list. Further other information about the object may be entered.

Test – control type and time period of communication test.

Two types of monitoring are possible: Synchronous and asynchronous. Synchronous monitoring – test message should be received following set time value with allowed deviation; If a message is received untimely, software message „No test“ is being generated.

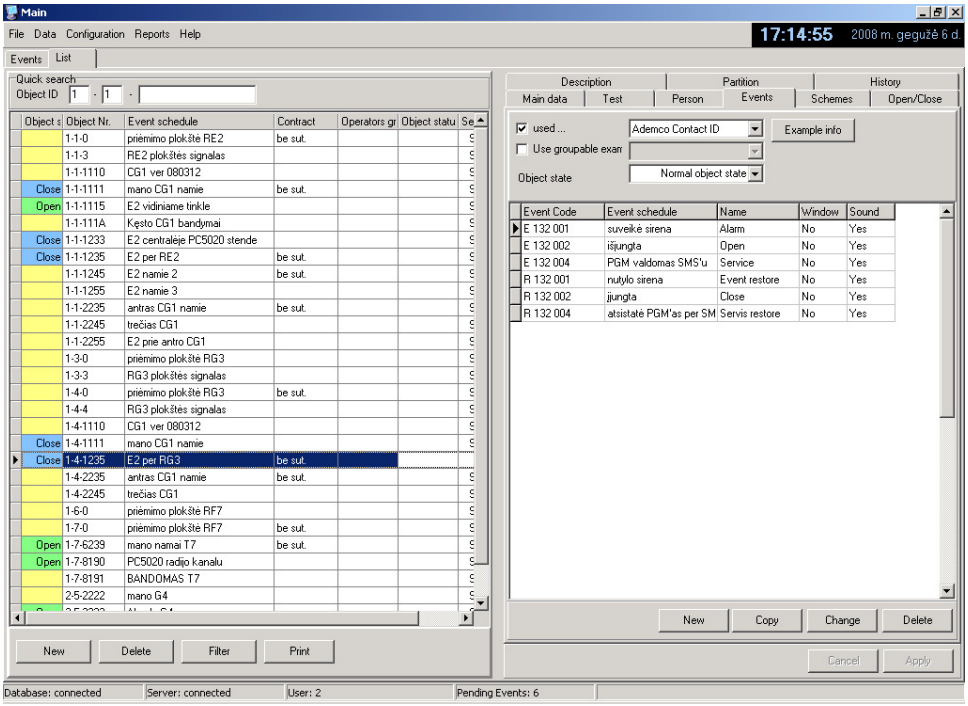
Under asynchronous monitoring test message must be received not later than set interval. If test has not been received software message „No test“ is being generated. [Other events] indicates that each received message is test message.

Property [not to monitor] may be selected. In such case test messages will not be controlled and will be automatically transferred to upper window. The software will generate additional messages.

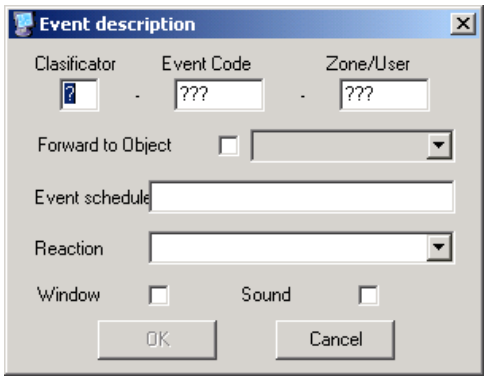


Events – description of received messages.

Received code of the event is involved in data, stipulated in object form and will be displayed on the monitor. Object form includes event code and description of a message or example following which a reaction is being performed. Firstly data of object form is performed and later these stipulated in example. If event code is described the message will be displayed including settings available in data base, if not – the software will generate message „Unknown event“.



Description of event may be modified, copied, deleted or added a new one. In order to enter description of message press [New]. Event window will be displayed.



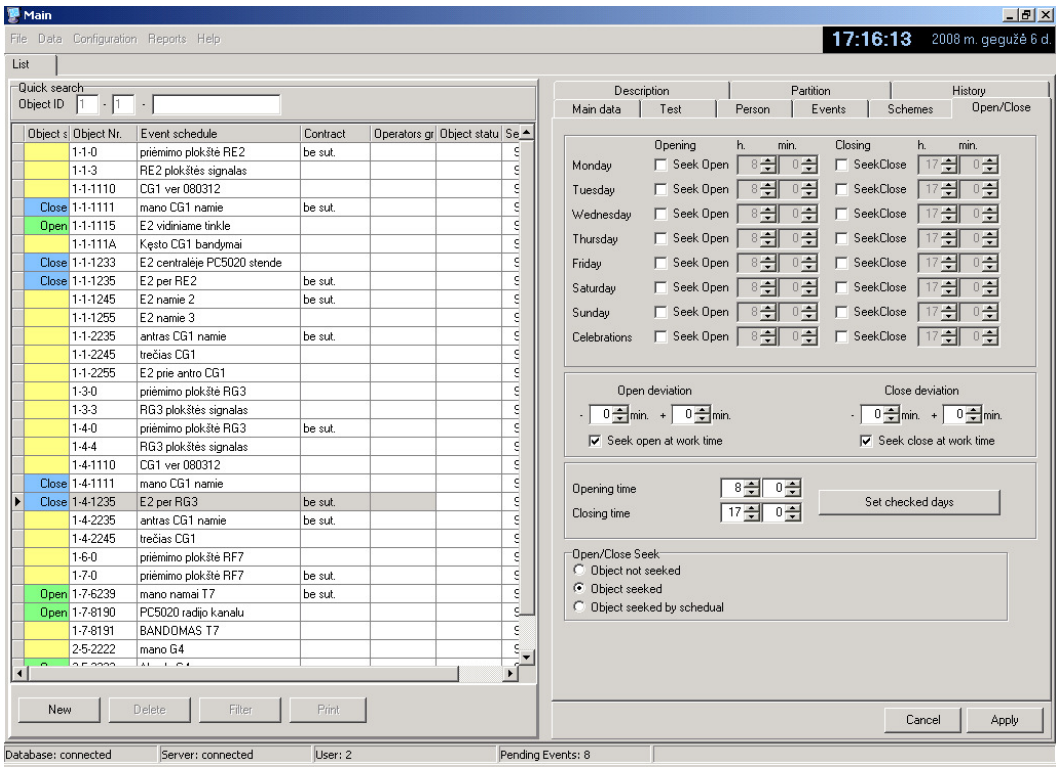
It includes event code (event type, code and zone or user). It is possible to include readdressing to other form. Events and reactions are entered. Check box [Window] and [Sound] and message will be indicated in event window together with sound. If checkbox [Window] is unchecked, a message will automatically be transferred to window of processed messages. Window [Sound] should always be checked.

Events may be readdressed to form of other object. For this purpose check [direct as object] and include number of new object.

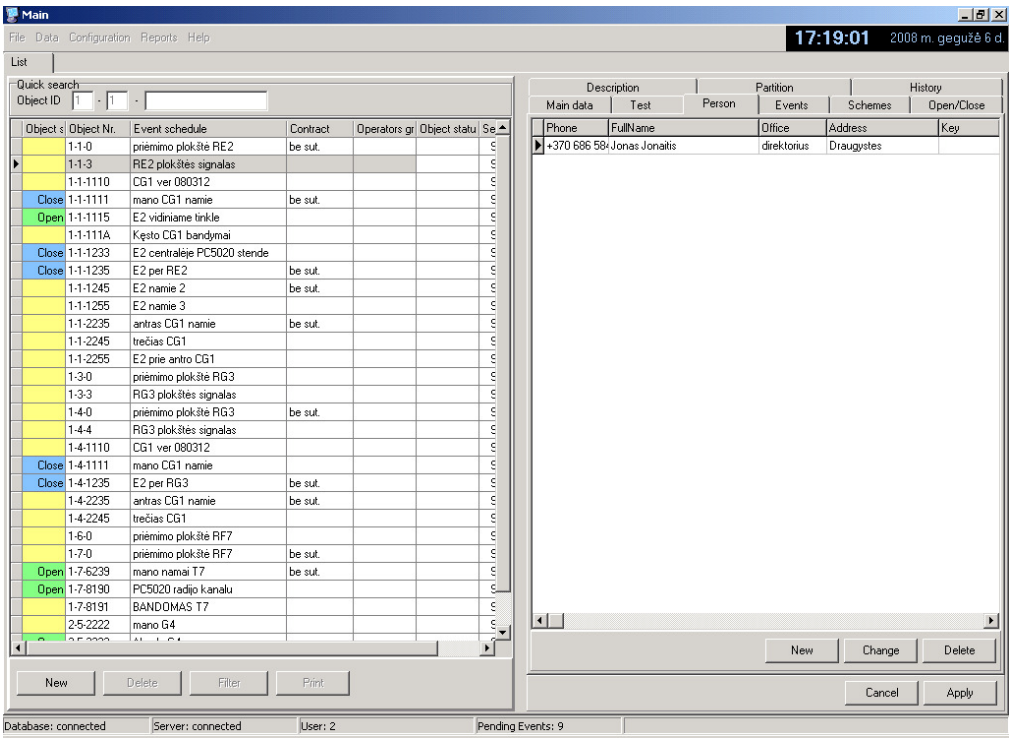
Open/close – control type of security system state (on/off) and schedule of switching on/off of security system.

If only status of security system is controlled, column “under control” should be indicated. Then status will be included in object list. If column “Following graph” is checked the software will control message reception time as well. It is possible to select “Not to monitor” also.

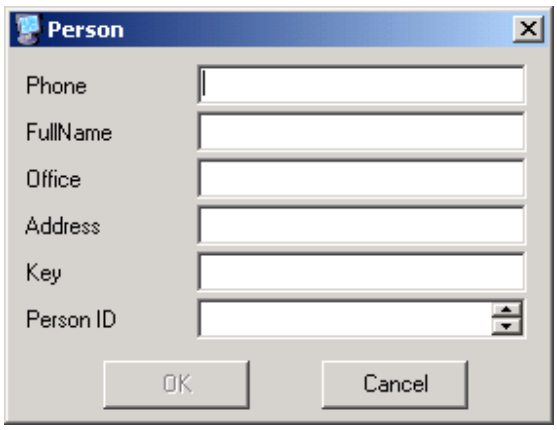
For well-timed control of switching security system on/off detailed monitoring schedule during working days should be concluded, schedule of holidays is also included. If appropriate message have not been received timely, the software will generate message “Object will not be closed/open timely”. If message is received timely – it is displayed in a form stipulated in object form.



Responsible persons – list of responsible persons.

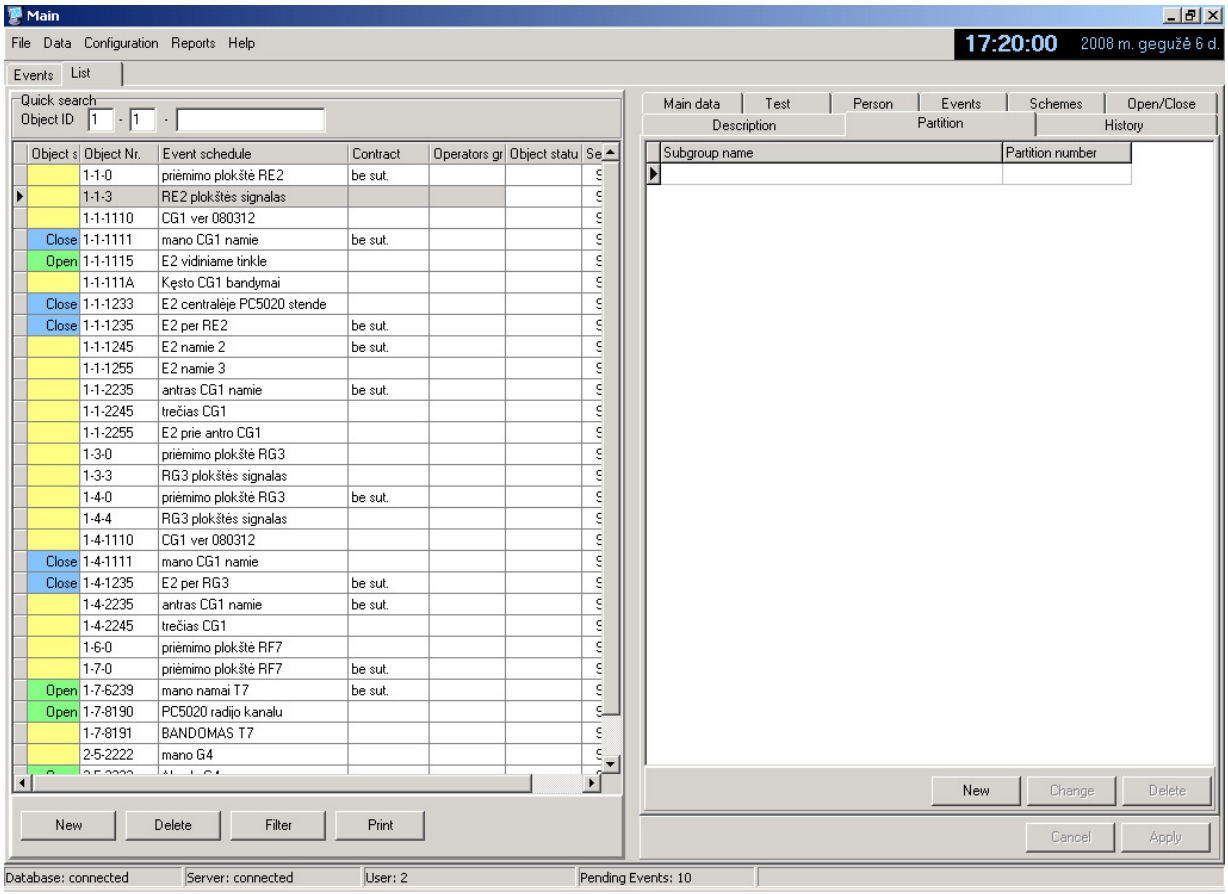


It is possible to enter, to modify, to add or to delete a responsible person. Form for entering responsible person is shown below.



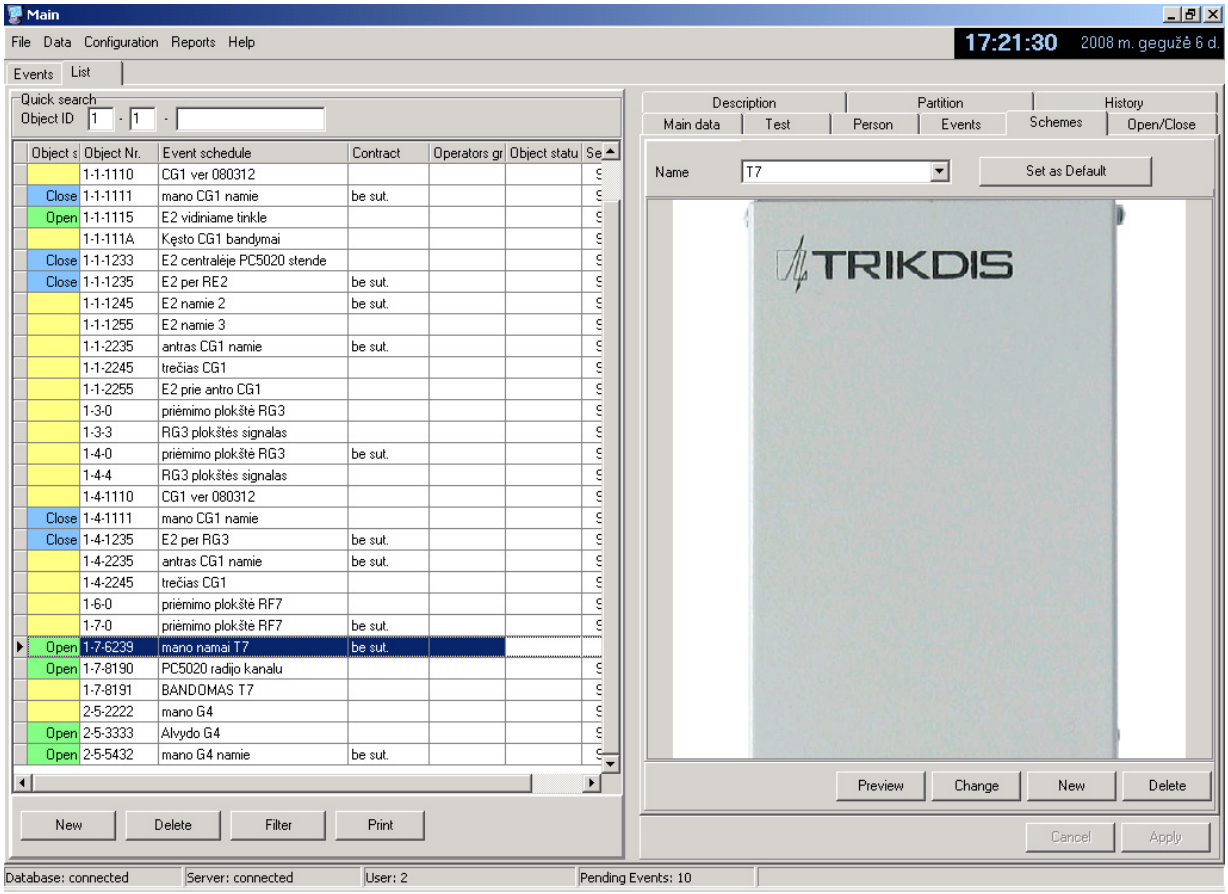
Key – a password for identification of responsible person. If a person can control security control panel and number of his control code is included in a column [user no], thus under reception of messages with user code his name and surname will be displayed instead of number.

Partition – partitions of security control panel.



It is possible to change a list, to add new info or to delete. Form for entering new partitions is shown below.

Schemes – used in graphical displaying of objects;
Used pictures may be in formats bmp. or jpg.



7. Notes – possibility to create detailed description of protected object. It includes data, which have not been included in other partitions.

8) History – it is possible to see 50 previously received messages.

After completion of formation of object form it must be saved. Press [Accept] or [Cancel]. Key [Cancel] saves old data and returns back to object list. Key [Accept] saves new data and returns back to object list.

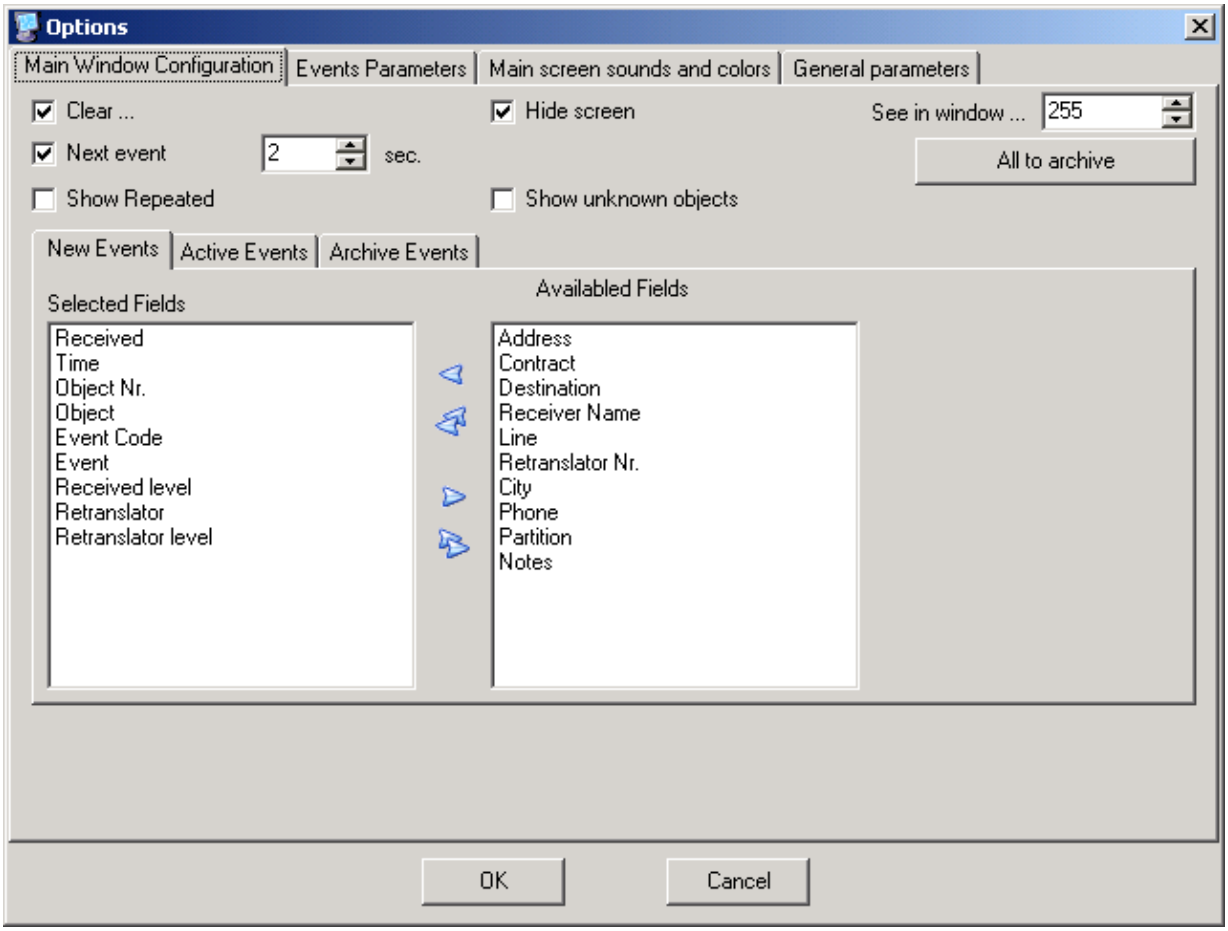
Operator groups may be created and objects may be assigned to them. Then messages from these objects will be possible to process only by operators from indicated group. This property is used in large stations, where several operators work in one shift.

Creation of operator group is performed by head of the station following commands Functions - Personnel - Group.

9. Setup of Main Window

Command *Configuration – Parameters* is used for setup of necessary properties of the Main Window.

Main Window configuration allows personnel to select information being displayed under reception of messages.



If checkbox [Clear] is checked it means that under new launching of application, messages from window of processed messages will be deleted from the window (to transferred to data base).

Checked window [Next after] shows time period after which new message will be transferred to messages window;

Checked window [Repetitions] shows repetition of messages. If this checkbox is checked all repetitions will be visible. If this checkbox is unchecked, only first received messages are visible.

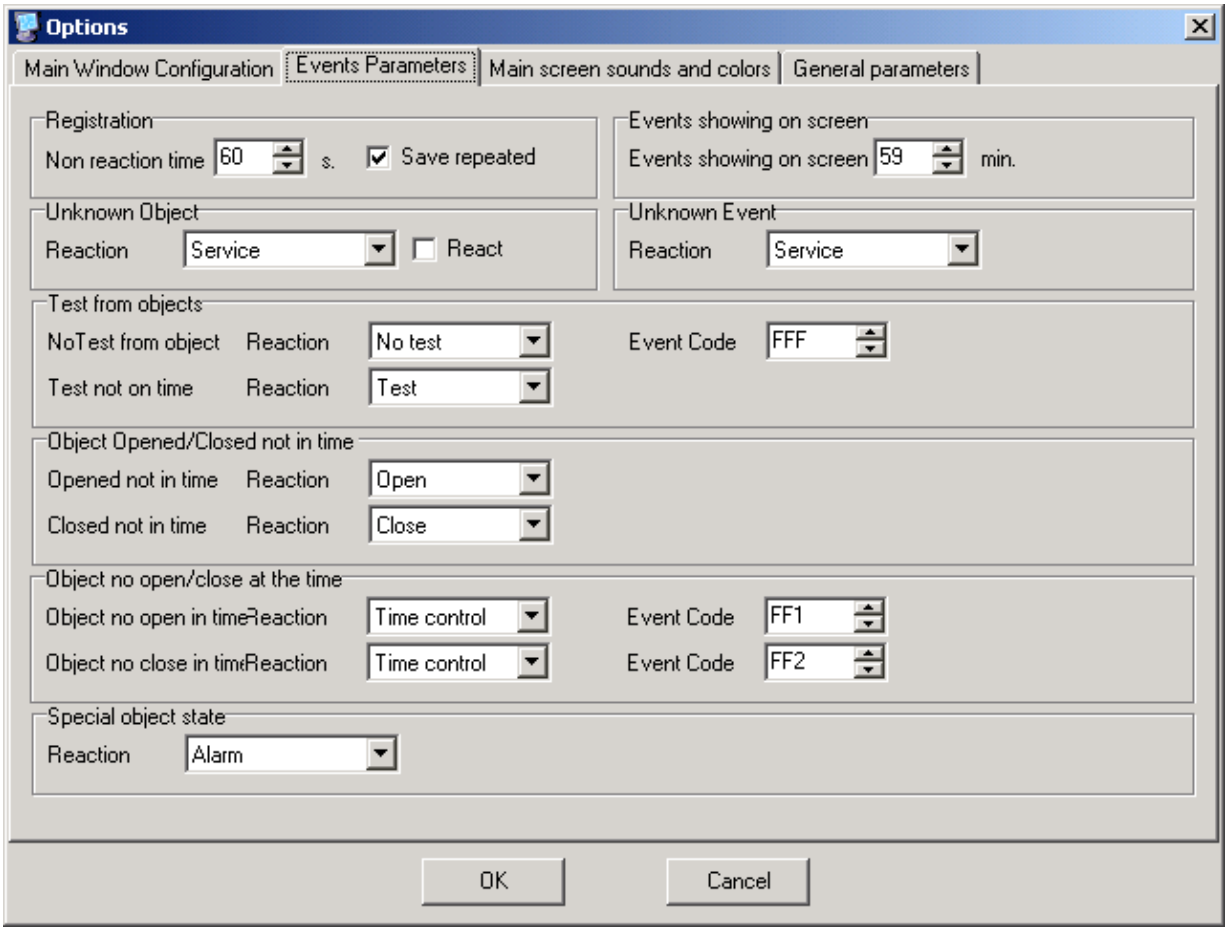
Checked box [Fade out window] indicates closed messages window at the moment of there no messages being processed and operator may see whole screen. If this box in unchecked – empty messages window will be displayed which will cover a part of the screen.

Checked box [Show unknown] allows displaying of messages from objects not included in data base.

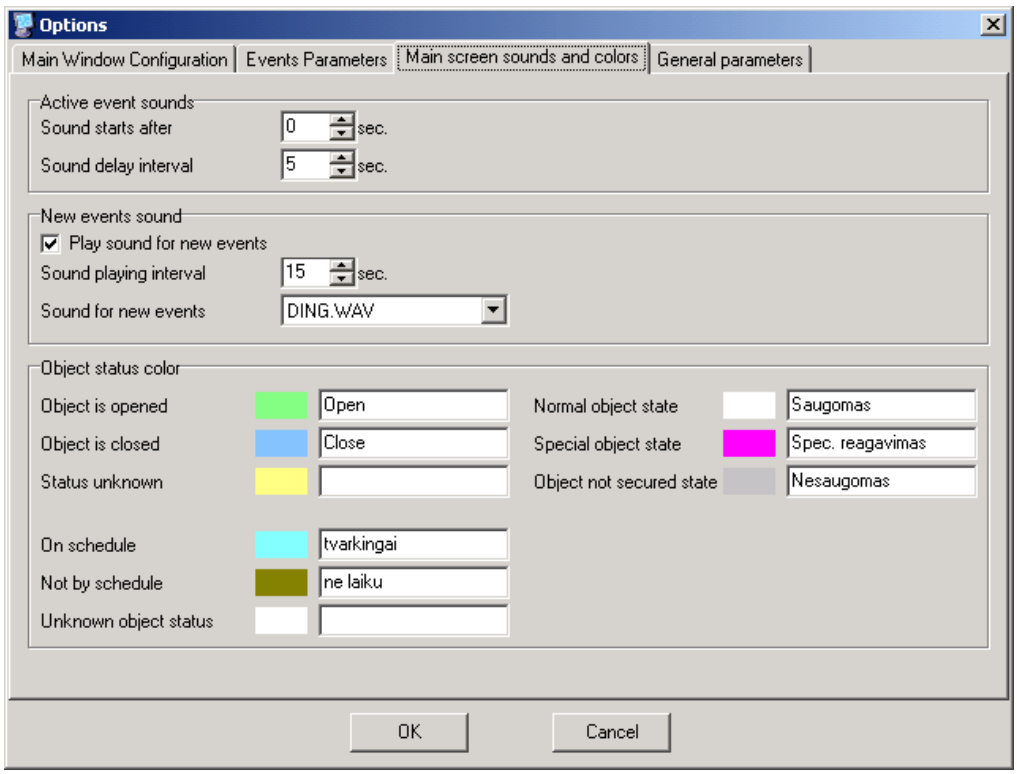
The field [visible in window…] shows number of messages visible on the screen. Other messages are possible to see via report window.

If received messages are not important, clear window by using key [put all into archive].

Events control – only some codes of messages are visible. Insensibility time towards the same message is set in line with time of displaying message on the monitor. Usually parameters of this window are left unchanged.



Main Window Sound and Colour - this window includes sound parameters as well as parameters of state, graphic, colour and notes.

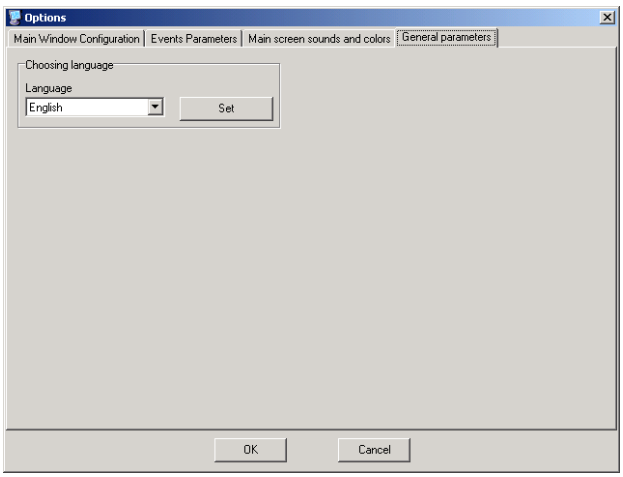


Box [sound after…] includes time period during which after reception of a message sound will be activated. Recommended time is 0 sec. Box [Interval of sound waiting] - indicates interval of sound waiting.

Window [Sound of new event] indicates whether a new event is accompanied by sound or not, as well as sound duration and melody. Recommendation is leave default settings.

Window [Colour state] indicates colour and note for object state. Colour change is set by double clicking and selection of new colour.

Selection of language – select language for communication between the software and personnel;



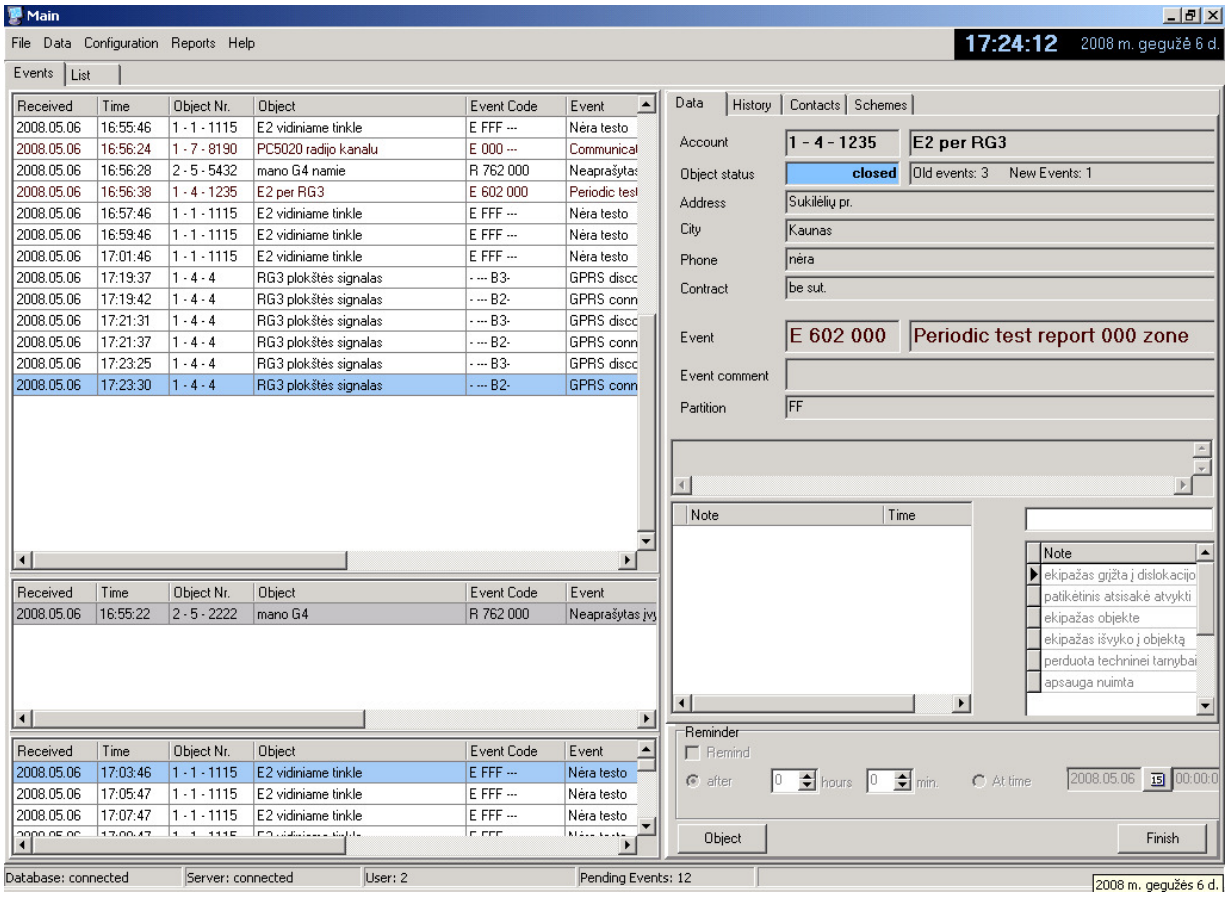
Command *Configuration – Enter* an event is used to transfer accumulated information to data base. Command is used by head of the station.

Command *Configuration – Setup of DB copy* is used for creation of data archive and its automatic storage in other drive. Command is used by head of the station.

Commands *Configuration – Data base and configuration – TCP server* are used to indicate data bas address. Command is used by head of the station.

10. Operator's work order

Operator of the station processes received messages. He enters necessary reaction notes and transfers alarm messages for crews. Basically operator works in a window presented below.



1) Processing of received message

If a message is subject to processing, operator makes a solution to whom information about event should be transferred. When selects or enters notes and by using key [Repeat] transfers a message to medium window of messages being processed. If the more detailed information is necessary for making a solution or for reaction, it may be rapidly accessed by *History/Contacts/Schemes* or by using keys F5…F8. Key [Object] is used to fully open object card.

If a reminder is necessary go to *Reminders* and include proper parameters.

To recall a message from a window of messages being processed use double mouse click.

After processing is finished, a key [End] is used to transfer messages to window of processed messages. Messages, which do not need processing, are automatically stored in this window.

2) Processing of test messages

Timely received test messages are automatically transferred to window of processed messages. If a message is received untimely, software message „No test“ is being generated. Reaction towards such message is performed following order established by CMS.

If test message was received untimely, the software generates message “Untimely test” together with question “To change/Not to change”? If test time is changed, the software memorizes it further test control follows new time.

3) Processing of on/off messages

If monitoring of on/off messages is being performed and the software generates message „ timely switching on/off“, operator's reaction must be in compliance with order established in CMS.

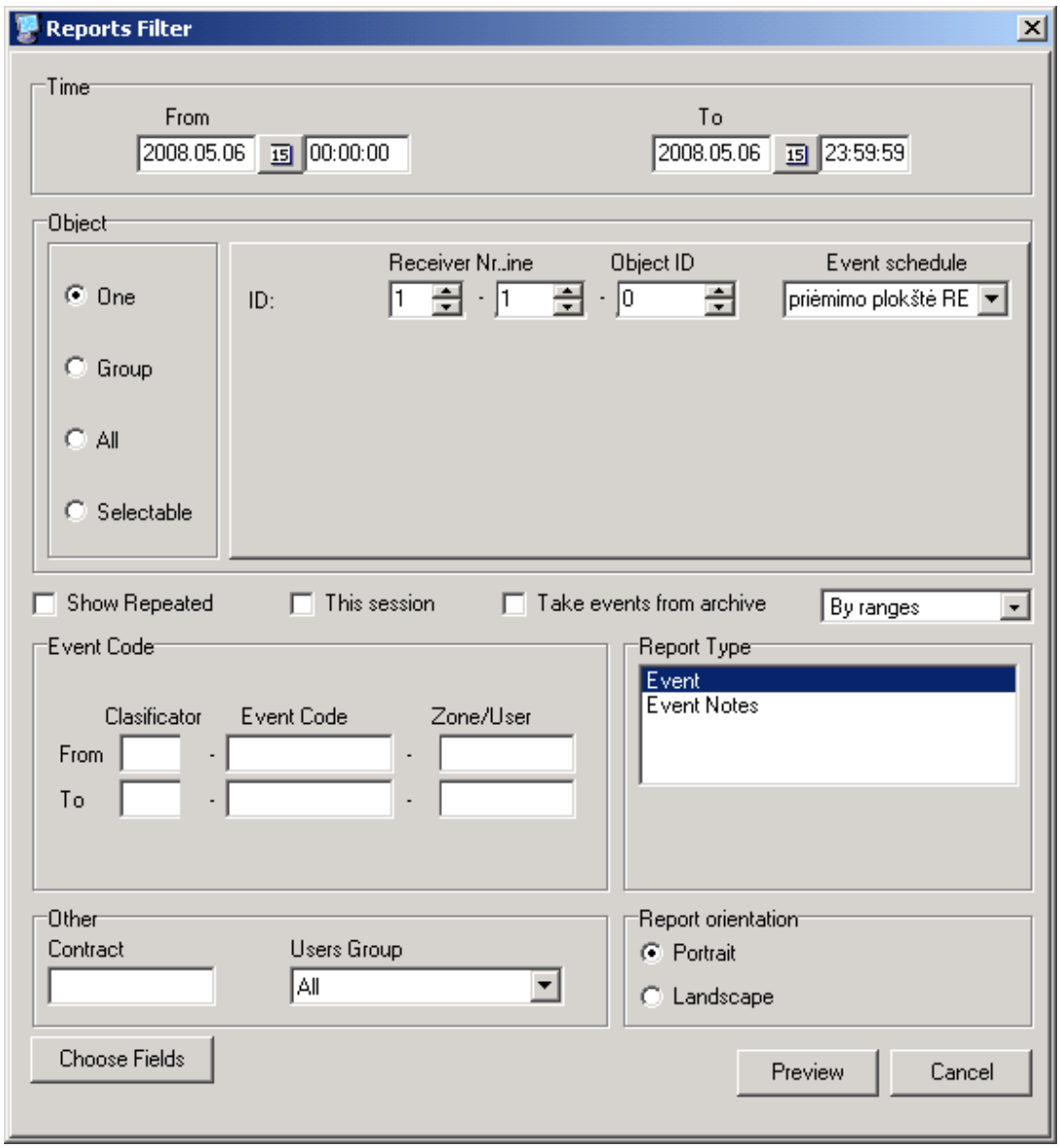
4) Shift change

Shift change is end of working shift of one operator and check-in of other operator or switchover from one work place to another. End of shift is performed under command *Functions – Off.* Confirmation window will be displayed and key [Yes] should be pressed. Window of new user is displayed.

Short name and password should be entered. Number of new operator is displayed in Main Window.

11. Preparation of reports

Report is concluded by using commands *Report – Events*.



Include period of reporting and time in the upper part of the window. Include number of objects (one or several) subject to reporting. Include number object or its name and other selection criteria. If number of object available in data base is indicated, the software demonstrates its title and vice versa.

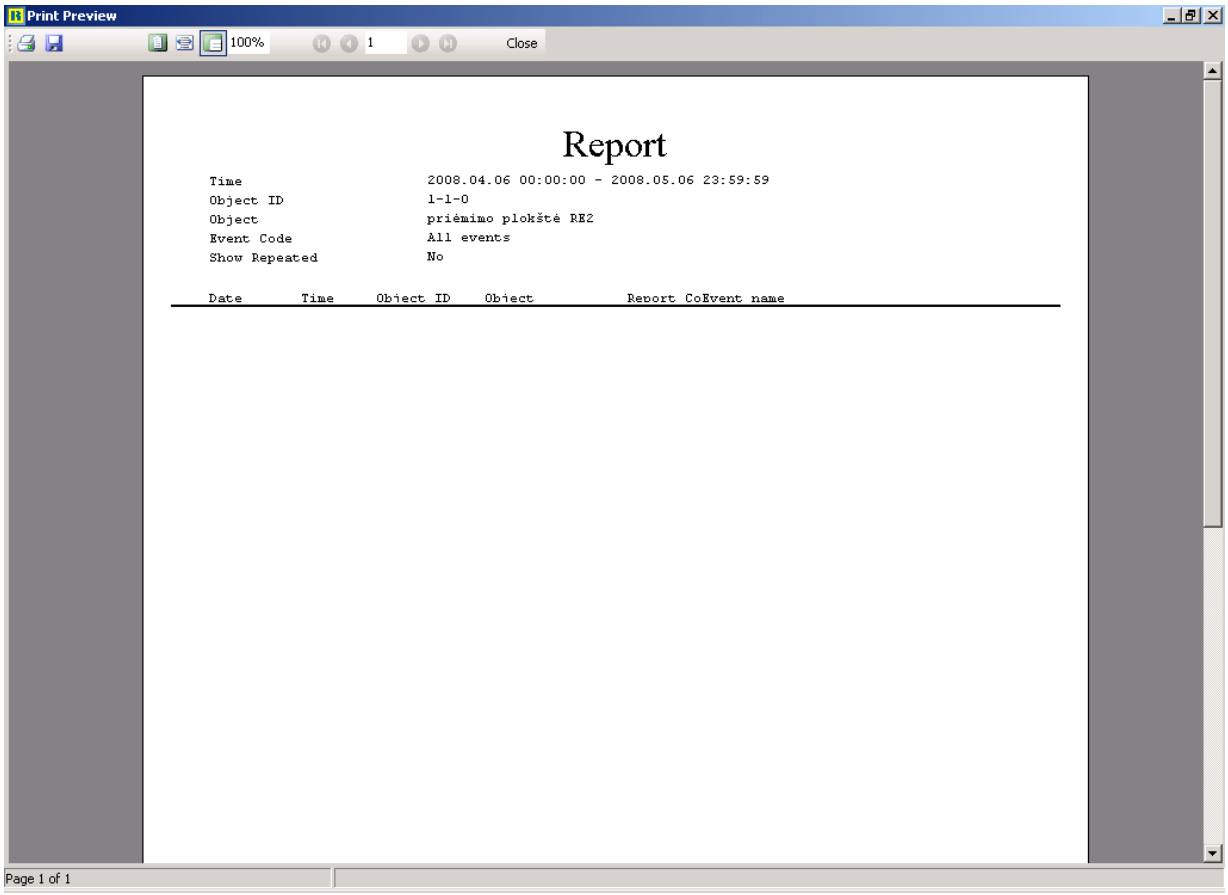
Select which messages you would like to see in report (from…till or selected).
Key [Select key] is used for setting of required size of field in a report.
Select report type (portrait or landscape).
If not provided [from archive] a report will include data from the last week only.

Selection of criterion for conclusion of report should be performed (excluding reporting period) and software will conclude report following set parameters.

<u>Note</u>

If report preparation is performed for a long time, note indicated time period and current time.

It is possible to print received report as hard copy or to store it as separate soft copy, which later may be processed by using other applications or to store without editing.



12. Terminology

Reaction crew -
A mobile group of physical guardians directly reacting to received alarm calls;

Status -
Status (on/off) of security system at the moment;

Event groups -
A message, which are received one after another during set time; they are mutually exclusive and do not need processing.

Special monitoring -
Intensified object control, when each message is considered as alarm.

Operators -
Employees of security station, responding to received message. They are involved in crew control.

Operators group -
A group of operators, having the same tasks for a reaction;

Administrator -
An employee responsible for proper operation of computer network and monitoring software;

Head of the station -
Employee, responsible for creation of data base, for adding new information to it, and for organization of operation of the station;

Technician -
Employee or group, responsible for technical state of object under protection;

Test message -
Hardware messages of communication control device.

Short name:
User name for software entry;

Security system on -
Time, when object is under protection and access is impossible;

Security system off -
Time period, when object released from protection and access is possible;

Password -
Combination of figures or letters providing software access;

Monitoring -
Reception of messages and appropriate reaction to these messages within monitoring station;