Alarm Commander

Monitoring Software

User and Installation Manual

Content

The Alarm Commander is a monitoring software which can receive and decode security and fire event messages from different digital receivers, and help the operators in their work based on the prerecorded data in its database. It optimizes the work of the operator by its preset settings, and provides a clear and streamlined user interface to facilitate quick and effective responses.

Features

Reception
- **Serial receiver**, for handling digital receivers over the serial ports (RS232 or USB CDC) Supported protocols are ENIGMA, Sur-Gard, and SIA DC-07
- plug & play receiver recognition on the serial ports
- **IP receiver**, for handling digital receivers over the IP network (LAN/WAN). Supported protocols are ENIGMA and SIA DC-07
- automatic receiver discovery on LAN
- **IP server**, for direct reporting over the IP network. Supported IP event reporting protocols are E2 and SIA DC-09.
- Account ID extensions based on reception ports.
- Separated event and keep-alive (test monitoring) handling

Display
- full screen mode
- 2 sided mode
- configurable colors and sounds by event types and groups
- freely customizable event list windows (colors, column types, order and sizes)
- selectable fonts and sizes

Simplified interface
- more search/list windows
- Quick search function for event lookup
- Automatic refresh of the event list windows
- Global search options for all windows
- Search objects for name, account ID and index at once

Objects
- Up to 99 account IDs for each object
- Up to 99 contact persons for each object
- Customizable zone, group and user information
- Control panel and/or communicator data can be used to identify objects (type, installer, Caller ID, MAC, IP, IMEI, SIM CCID/IMSI)
- Separate notes and comments (10kB)
- Freely configurable object groups for search classification

Operator Actions/Responses
- Simplified acknowledge option, without further action needed
- Automatic closure of actions (AC, Battery or comm failures)
- Automatic acknowledge for repeated events

Status Monitoring

- Test and keep-alive (heartbeat) monitoring for each account ID
- Inidividual period and tolerance settings for each account
- Individual AC and Battery monitoring for each account
- Individual Open/Close monitoring for the accounts/objects
- Signal level monitoring (depends on communicator type)

Service / Test Operation

- Selectable period for unattended service/test mode
- Configurable automatic expiration of service mode
- Unlimited service mode is possible
- Can be specified for given account ID, event code, group, zone or user code

Notes / Logs

- Comments for each step of action for the event and object
- Individual comments for the objects (can be assigned to account IDs)
- Notes for the installer, operator or patrol
- The last note/comment is displayed at the event details
- Every action and modification is logged

Code Tables

- simplified code table (alarms/restorals in pairs)
- acknowledge options can be specified for each event code (apart from event types)
- Group or zone/user ID can be assigned to the event codes
- Fully customizable code tables, also for individual accounts

Security

- customizable operator rights
- operators can log in with password or PIN code
- Password protected display of object details/passwords (optional)
- Exiting the program is possible with proper operator rights only.
- Password protected SQL database (SQLite, PostgreSQL)
- Optimized database tables for faster operation
- Automatic database maintenance (clean-up for faster access)
- Automatic database backups

Network Functions

- Server / Client mode
- Server / Client synchronization, so that the client can be act as a backup server if needed
- Server / Server synchronization/mirroring for parallel operation

Installation and Setup

The program must be first installed on the computer, which is connected to the receivers, or in case of direct IP reception, on the computer which receives the incoming messages. The recommended operating system is Microsoft Windows 10, but the program can be run on Windows 7, 8 and 8.1, as well. A display monitor of proper size and resolution is recommended to provide comfortable overview of the lists..

Recommended Configuration

- MS Windows 10 computer – for proper speed, the recommended CPU performance must be exceed 3000 CPU Marks (according to https://www.cpubenchmark.net/cpu_list.php), but over 6000 is recommended
- 4GB RAM (min. 8GB for Windows 10 64bit)
- 256GB SSD
- Display resoltion 1920x1080 (Full HD) or better, (screen size of 23-24" recommended)
- RS232 ports for digital receiver connection (depends on configuration)
- Gigabit Ethernet interface, Sound

Program Setup

After the first installation, a user with administrator rights is created. The default password for the administrator is '1', or PIN '1234'

The most features of the program and some of the display options can be configured in the Program Settings menu, or with the F9 hot key. In the Window/List menu it can be set up, what should be displayed on the screen, so that the program can be used even at lower resolution, or alternatively, more information can be displayed at once.

The contents of most list windows are freely customizable in the program. Where applicable, clicking on the header line of the list window will invoke the column settings options for the window. Not all the columns can be hidden, so the unwanted columns must be moved at the end.

In Split-Frame Mode the size of the list windows are smaller, so that less columns can be displayed for them, so that the column settings of normal and split-frame views are stored in the program separately, making changes of view easier.
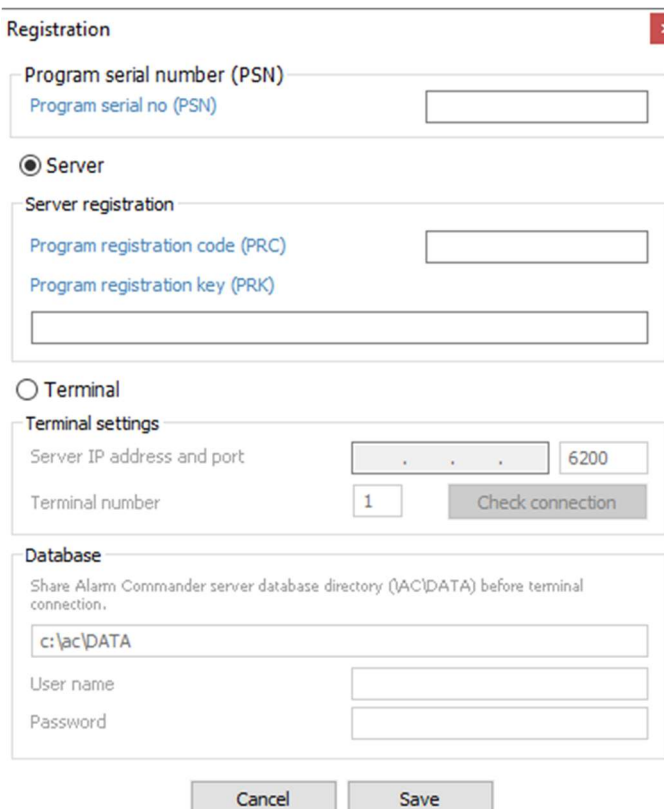
Registration

At first start, a red flashing UNREGISTERED caption is displayed in the lower status line. No modifcations in the program setup can be performed until the software is registered.

Registration can be accessed by clicking on the flashing caption, or within the Help / Registration menu.

A **Program Serial Number** (**PSN**) identifies the program, this comes with the software upon purchase. Program features and options can be selected at purchase, or can be added later by upgrades:

- Number of objects: 100, 250, 500, 750, 1.000, ... (can be extended by 250 steps)
- number of serial ports (default 1, maximum 15)
- number of IP receivers (default 1, maximum 15)
- number of IP servers (default 0, maximum 15)
- number of client terminals (default 0, maximum 15)
- extension modules

At registration, after specifying the Program Serial Number (PSN) the software generates a registration code **Program Registration Code** (**PRC)** which ,must be sent to the distributor/reseller of the software. The **Program Registration Key** (**PRK)** is then issued for the PRC.

Registration must be renewed every year with a new Program Registration Key. The software will notify the user about the need for the new registration 30 days before the previous registration expires.

Client terminals should not be registered, as they are using the registration of the server application.

In case you want to connect to an Alarm Commander server as a terminal/client, you have to specify the IP address and port of the server computer (terminal 0), and the number of the client terminal. In case of running more terminals or clients, always use a unique terminal number for each.

The connection between the server and the client can be verified. If you run into problems always check the firewall settings of the server computer.

When using SQLite database, the DATA folder on the server computer must be shared on the network for read/write access. Upon successful sharing, the DATA folder of the server must be accessible from the client computers. The path to the DATA folder (e.g. \\192.168.0.12\DATA), and the username and password for its access must be specified in the client terminal.

Reciever Setup

The program can be connected to digital receivers in two ways:

Serial Receiver
Commonly, digital receivers can be connected to the software using RS-232 serial ports (or USB Virtual COM Ports) using Sur-Gard MLR2 or SIA DC-07 protocols. Up to 15 serial receivers can be connected at once. The program can also scan the available ports and detect connected receivers at 9600 and 57600 bauds, offering them for connection.

IP Receiver
Digital receivers can be connected through the IP network, as well, using SurGard or SIA DC-07 protocols. The software will actively connect to the receivers via TCP, and the receivers must send the events as soon as the TCP connection is ready. Also, a network scan option is available to discover Enigma II receivers on the local network, to ease the setup process.

IP Server – Direct IP Reception
As an option, the software can receive events directly from the accounts through E2 and SIA DC-09 IP Event Reporting Protocols. Up to 15 different ports can be configured as IP servers.

For all receivers and reception types, the account IDs can be extended and modified, so that different control panels/communicators using the same account IDs for different receivers can be identified and assigned to different objects, accordingly.

Using the Program / Terms and Definitions

Before introducing the Alarm Commander monitoring software, we review some of the commonly used terms and definitions

Digital receivers accept incoming event messages from external objects, mostly from **Burglar and Fire Alarrm Systems**, commonly referred as **C**ontrol Panels, and forward these messages to the monitoring software. In many cases, the control panels are not directly connected to the digital receivers, but using an intermediate **Communicator.** Messages can be relayed through different communication channels, like PSTN phone lines or RF connection, but IP based transmission becomes the most common channel these days.

Apart of the messages received from outside, the receivers can generate their service messages, but also, the monitoring software itself can generate various notifications and service messages.

Everything, the monitoring software has to process is commonly referred as **Message.** Once the messages are decoded, the software can treat them either as **Events** or **Heartbeats**, (or so called **Keep-alive** messages)

Heartbeats are commonly sent by communicators, indicating their continuous connection. (Keep-alive) The period of these messages is verified in the software, so it can notify the operator about missing communication automatically, or according to the account settings. As these keep-alive messages are usually background information, they are not displayed in the event lists.

Events are all messages except heartbeats. They can be Alarms, Openings, Closings or Service Events, and also **Periodic Tests**. These test events are different than heartbeats, as former are sent by the Control Panel, while latter are generated by the intermediate communicator. As test events are important for monitoring the operation of the control panel, their period is monitored by the software separately, similar to the heartbeat messages.

Events can be composed of many parts, but for us the most important are the **Accound ID**, the **Event Code**, the **Group** (or **Partition**) information and the **Zone / User ID**. These four information can precisely describe, what happened in the **Object**.

Every **Object** is handled under separate IDs by the program, and they represent the clients of the Monitoring Station. Client related data is stored at the Objects, with all related **Account IDs** depending on the actual security system.

Events are also classified into **Event Types**, making their processing easier, as the most important event related options can be specified at the Event Types, and effective for all grouped events.
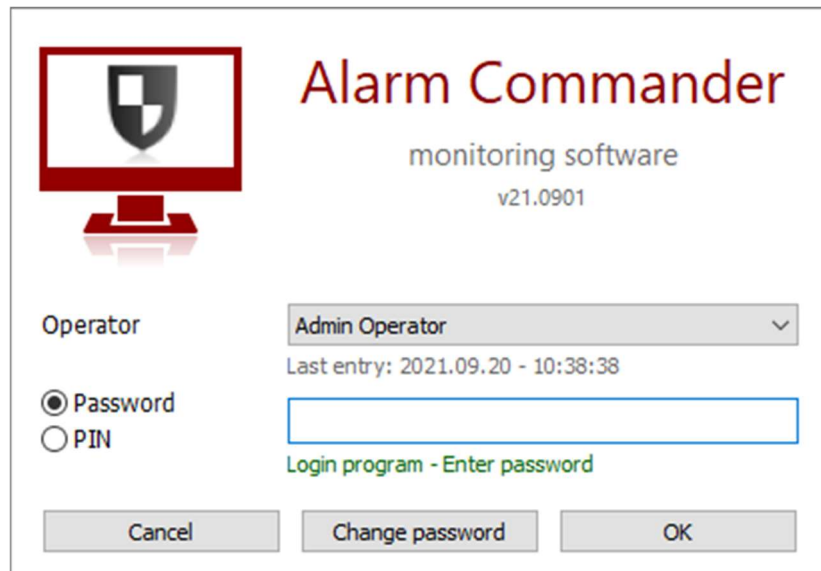
Actions start with the acknowledging of the events, and remain active until closed. A **Processing Time** can be specified for actions, and the software reminds the operator of ongoing actions, that need to be closed, when this time expires. Indiviual or automatic acknowledgment of further events received from the same object during an ongoing action can be specified by Event Types.

Service Mode can be useful, when events from an object, or its partitions should not be acknowledged for some reason (failure, testing, installer on site, etc.) The software can automatically acknowledge incoming events from the object for a specified period.

Starting Up

Upon startup, the program opens receiver connections and starts logging automatically, but entering the program, and accessing its features is possible only by logging in as an operator, with the proper password or PIN code.

Operators can have different access rights, which can be defined by administrators, but the password and/or PIN code must be chosen by the operators themselves.

After a new installation, a default operator with administrator rights can be chosen for login. The default **password is 1**, the default **PIN code** is **1234**.

When modifying passwords or PIN codes, first, the old password/PIN must be entered, then the new one, two times in a row.

If there's a password defined, and already in use, changing to PIN code authentication is possible only after entering the password correctly. Similarly, if the PIN code is in use, changing to password authentication is possible only after entering the correct PIN.

The program will log off the user automatically after 15 minutes of inactivity. After that, the user must log in again. Also, closing the program is possible only by entering the password/PIN.

User Interface

The user interface can be customized by the user. By default, the buttons at the top of the window access the different lists.
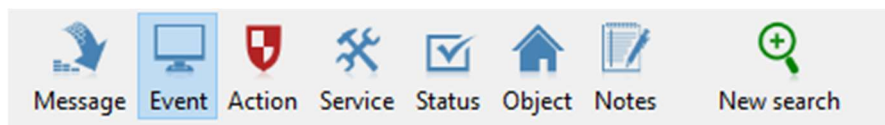
The buttons at the bottom of the screen are used to access the different functions quickly.

The Alarm Commander Icon at the top-right corner of the window indicates pending tasks for the operator by flashing in different colors. In order of priority these can be:

Red flash	Pending unacknownledged event	
Orange flash	Expired ongoing task	
Blue flash	Expired service	

At the same time, a continuously repeated sound indicates pending tasks as well.

Depending on version, the main window can be split to one or two frames, each showing the different lists.

The open lists appear on the frames as tabs
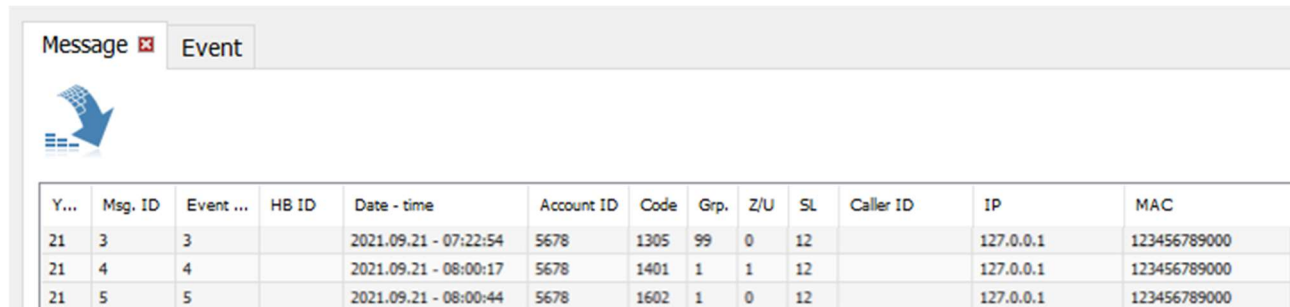
All lists can be customized freely. The software stores the list display settings for both one and two framed modes. The columns appearing in the list, and their order can be set in the dialog box appearing by right-clicking on the list header.
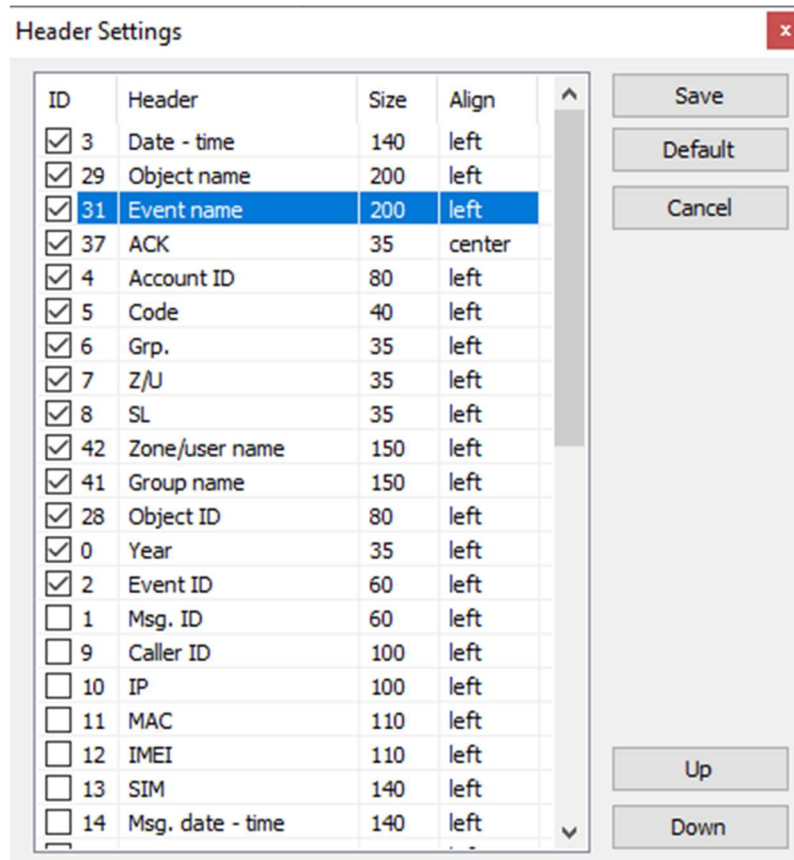
In all list windows, context-sensitive menu can be opened by right-clicking on the selected row, to quickly access related functions, for example, to create an event list of the current object.

Messages

In the Message window all the messages are displayed prior processing, and their data can be viewed without filtering. As these are raw data, this is mainly a technical support function. All incoming events and heartbeats are displayed here together, as the software handles them differently in later stages.
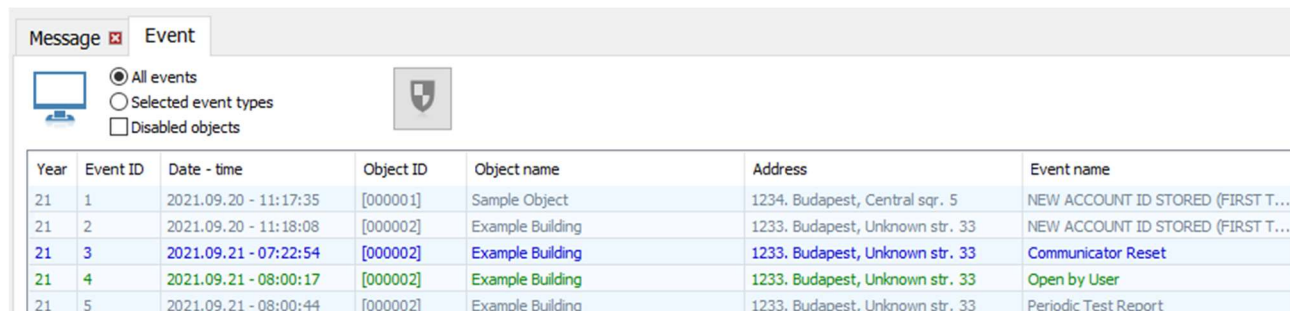
Y...	Msg. ID	Event ...	HB ID	Date - time	Account ID	Code	Grp.	Z/U	SL	Caller ID	IP	MAC
21	3	3		2021.09.21 - 07:22:54	5678	1305	99	0	12		127.0.0.1	123456789000
21	4	4		2021.09.21 - 08:00:17	5678	1401	1	1	12		127.0.0.1	123456789000
21	5	5		2021.09.21 - 08:00:44	5678	1602	1	0	12		127.0.0.1	123456789000

When the Last Event Auto-select option is selected, only the last few messages that fit into the actual list view, are displayed, providing faster operation.

Events

The Event window shows the processed events, without heartbeat messages. For all events the name of the object and the event data are stored permanently, so these cannot be modified later, the list will always show them as they were, when received.

Year	Event ID	Date - time	Object ID	Object name	Address	Event name
21	1	2021.09.20 - 11:17:35	[000001]	Sample Object	1234. Budapest, Central sqr. 5	NEW ACCOUNT ID STORED (FIRST T...
21	2	2021.09.20 - 11:18:08	[000002]	Example Building	1233. Budapest, Unknown str. 33	NEW ACCOUNT ID STORED (FIRST T...
21	3	2021.09.21 - 07:22:54	[000002]	Example Building	1233. Budapest, Unknown str. 33	Communicator Reset
21	4	2021.09.21 - 08:00:17	[000002]	Example Building	1233. Budapest, Unknown str. 33	Open by User
21	5	2021.09.21 - 08:00:44	[000002]	Example Building	1233. Budapest, Unknown str. 33	Periodic Test Report

Events awaiting acknowledge are displayed with bold typeface (option), and double-clicking on them will acknowledge events and invoke event data at the bottom of the window. The acknowledge is logged, and at the same time, the action for the event starts automatically.

Similar to the Message windows, the Last Event Auto-select option displays the last few events that fit into the actual list view, for faster operation.

Event Details

At the bottom of the Event window, the details of the currently selected event are displayed.

It contains all important information related to the object and the event, and the actions can be modified or closed here, too.

 In the **Contact/Patrol** list, the contact persons for the object can be seen. By right-clicking on a row, the related password can be viewed in the appearing menu, and it can be set, if the contact trial was successful, which automatically creates a note for the event at the same time.

 The **Status/Control** list shows the current states of the object

 The **Notes/Comments** list can contain important notes, and comments stored for the event, or for the object. Depending on the selected one, additional comments can be added to the event/object, or a new important note can be created.

If there is an active important note, then it is always displayed in a red frame under the list. This can be hidden by closing it in the right-click menu of the important notes list. items.

 The **Group / Zone / User** list contains the individual notations assigned to the object and account. Based on that can be detailed display of the events provided in the lists.

 The **Notebook** displays the text information of up to 10 kB, which is stored at the current object

 The **Info** list contains all additional comments to the object data, and also, all the detials of the event can be viewed here in a list

 The **Actions** button shows the current state of the on-going action. Here the action times can be modified in needed, or the action can be closed.

 The **Password** assigned for the object can be displayed with a separate button.

Actions

In the Action window the pending events can be acknowledged by clicking on the event, or on the Acknowledge button. After that the action starts automatically. The software can be set to work without actions, too, in this case only the acknowledgement is logged. On-going actions are sorted in the list according to their expiration time.

The average **Action Time** is 60 minutes, but for alarms it is decreased to 15 minutes. These default values can be changed if needed. In case the action time has to be modified during the action, it can be done in the menu appearing at right-clicking on the event, or in the event details window at the Action details. The expiration of the action time is indicated by orange flashing of the Alarm Commander icon, and red, bold typeface display in the list.

At **closing the action** the resolution of the action must be given. This can be done at the Event Details window, or at the menu appearing by right-click on the action list.
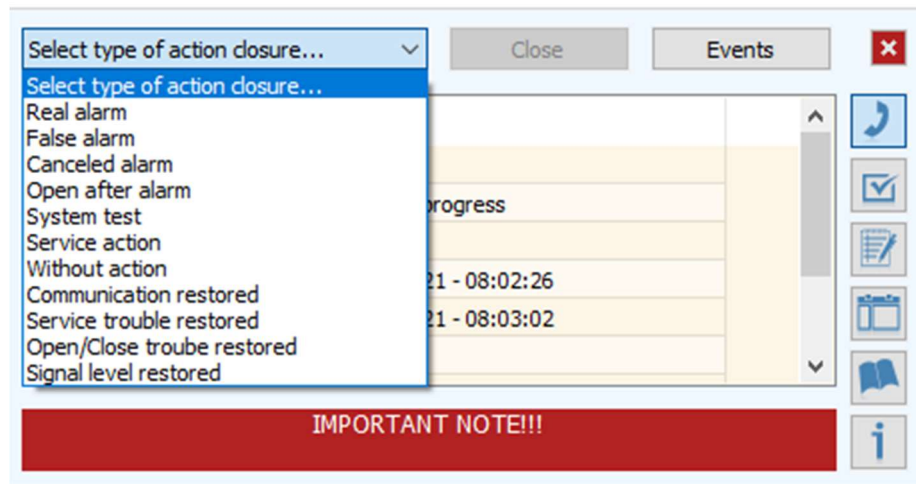
In case of communication troubles (test or heartbeat failure), AC or battery problems, the software can automatically close the action if the restoral for the event has been received in the meantime.

Events received from an object between the start and closure of an action can be related to the action, so that an event list of an object that is created from the Actions window will contain the events from the start of the action only.

If there is an on-going action for an event type, the events of the same event type received during the action do not have to be acknowledged. This option can be enabled by event types.

Service

The Service mode can be used, when an object does not require any actions temporarily, due to testing, maintenance or any other reason. This means, that the events from the object, that otherwise needed attention, do not have to be acknowledged. This option can be enabled for all events from the object, or can be used only for specified events, as well.

When the time specified for the service mode expires, the blue flash of the Alarm Commander icon indicates it. An automatic closure of the service mode can be set, and also, the service mode can be enabled for an unlimited time, if needed.

The service mode for the object can be closed manually at any time.

It is also possible to set service mode for a specified period, ahead. Service mode will be activated at the preset start time.

Status

In the Status list the current arming, AC, battery, test and heartbeat status of the objects can be reviewed. Beside them, time of the last received event, and if present, the last recorded signal level are displayed.

Object ID	Object name	Address	Account ID	Open	AC	Bat	Test	HB	Last event	SL
[000001]	Sample Object	1234. Budapest, Central sqr. 5	1234	▲					2021.09.21 - 08:05:26	80 %
[000002]	Example Building	1233. Budapest, Unknown str. 33	5678	▼			✔		2021.09.21 - 08:00:55	80 %

As more Account IDs, and partitions can be assigned to an object, the different status information are displayed as a percentual value. 100% (green) means, that E.g. the object is fully open, all tests and heartbeats has been received, etc. Red color can mean armed state or trouble, orange indicates an intermediate value between them.

The status details on the right side all the relevant status information of the object can be seen as percentual values. Below that the details of the selected status can be displayed sorted by accounts and groups.

Column	Value
Object ID	[000001]
Object name	Sample Object
Objectc address	1234. Budapest, Central sqr. 5
Object account ID	1234
Open status	100 %
AC status	
Battery status	
Test status	
Heartbeat status	
Online	
Last event	2021.09.21 - 08:05:26
Signal level	80 %

Open status

Account	Group	Open	Sched.	Date/time
1234	1	▲		2021.09.21 - 08:02:40

17

Monitoring of openings/closings, tests and heartbeats can be set by clicking on the row of the given accounts.

If there are problems with the automatic test and heartbeat monitoring, their settings can be cleared. The software will then restart collecting data to calculate their period automatically. If needed, the periods of tests and heartbeats can be specified manually.

Object

The Object list contains the data of all the objects and accounts, sorted by Object numbers or Account IDs.

The object and account details can be displayed or hidden by clicking on the + button:

To create a new object, or to edit an existing one, the data for the object can be entered at different pages:

Basic Data

Address Information

Contact Information

Account IDs

Groups / Partitions

Zone Names

User Names   **Object Notes**

To save modifications, the „Save" button must be first enabled with the checkbox beside it.

IMPORTANT! When creating a new object, the object name must be specified, and it is recommended to assign an Account ID to it. If any message from the account has already been received before, and it has not been assigned to any objects before, it can be selected from the appearing list. Also, Account IDs that have been cleared / deassigned from other objects, can be chosen here.

Notes

In the Notes window notes and comments with a timestamp can be added to the events and objects. In most cases these notes are automatically created, helping the work of the operator, but additionally, the operator can create notes, even from predefined templates.

No.	Date - time	Object ID	Object name	Address	Account ID	Note	Imp.	End c
40	2021.09.21 - 07:23:04	[000002]	Example Building	1233. Budapest, Unknown str. 33		Acknowledgement		
54	2021.09.21 - 08:01:48	[000001]	Sample Object	1234. Budapest, Central sqr. 5		Acknowledgement		
55	2021.09.21 - 08:03:02	[000001]	Sample Object	1234. Budapest, Central sqr. 5		Acknowledgement		
56	2021.09.21 - 08:14:50	[000001]	Sample Object	1234. Budapest, Central sqr. 5		IMPORTANT NOTE!!!	✔	
57	2021.09.21 - 08:24:59	[000001]	Sample Object	1234. Budapest, Central sqr. 5		Service created		
58	2021.09.21 - 08:25:56	[000001]	Sample Object	1234. Budapest, Central sqr. 5		Service updated		
59	2021.09.21 - 08:27:19	[000001]	Sample Object	1234. Budapest, Central sqr. 5		Service updated		

An important note can be assigned for each object, that will be displayed in the Event Details window framed in red, so that it will surely catch the operator's attention. The previously created important notes of course can be listed and reviewed, too, if needed.

All changes in the software and the databases are logged and stored as log notes, as well.

Search / New search

With the New Search function, different event lists can be created for a given period with various filtering options

Apart from date/time periods, different objects and event types can be selected. The selections can also be stored for later use. The custom event filters can be specified freely with logic expressions, and can also be stored for later use.

Event list of the last 24 hours can be created in almost all list windows from the context menu invoked by right-click, or by pressing the middle button of the mouse on the selected object.
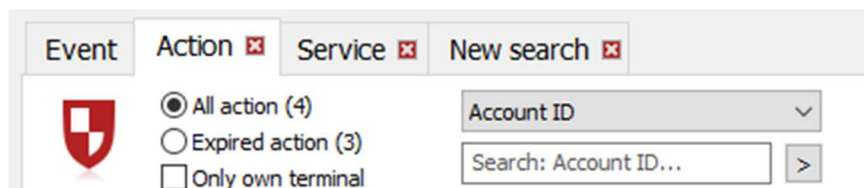

As only events are displayed in the lists, by default, showing the heartbeats for the selected object can be enabled as an option. Another option is to show only the events that were required to acknowledge, in the event list.

Depending on version, multiple searches can be prepared, and the lists can also be automatically refreshed if changed.
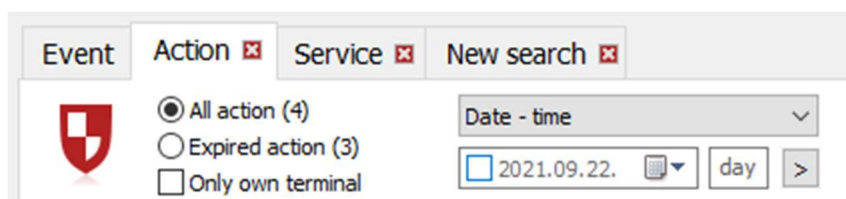
Filtering

In most lists, the appearing items can be filtered. First, the base for the filtering must be selected, then enter the expression, or a part of it, that the list has to be filtered for, and press Enter.
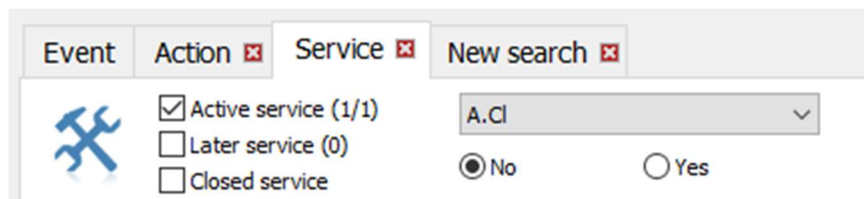
For filtering dates, the starting date has to be given, and that how many days from that has to be taken into account at the filtering.

When a logical field is selected for filtering, only the status „Yes" or „No" has to be specified.

IMPORTANT! For proper sorting of accented letters in some languages, it is recommended to select the „Order by Unicode Characters" option at the language settings.