STEBATEC®
Measure - Control - Regulate

STEBalarm

Alarm device & central

intelligent
flexible
easy to use
modular

Alarm processing, resource planning and personnel management in one device!

Receiving and processing technical alarms, forwarding them to the appropriate persons and meticulously documenting the events that have occurred are the tasks of STEBalarm - the system that handles major tasks with ease.

Interface and communication flexibility, redundancy, multiple protection, user comfort and a multitude of practical functions are included in the simple device, which can be operated via web browser with striking simplicity.

Whether connected to a control system as a simple alarm device or used in a network as a solution for networking several systems, STEBalarm integrates flexibly and offers maximum safety and convenience.

* on-call service = standby duty

STEBalarm is individually configurable and with versatile interfaces compatible with practically all commercially available control systems.

Single or networked

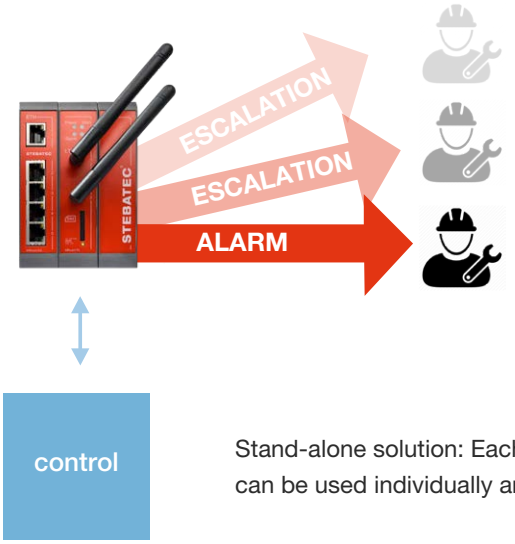
STEBalarm can be connected to controls as a stand-alone device or operated in a network. The networking of the decentrally arranged stations, or the coupling to a central station, is usually carried out via the Internet, whereby the STEBalarm devices are by default equipped with Internet technology for setting up the VPN tunnels required for communication. In addition to the alarm, the VPN tunnel can also be used for other data communication (e.g. PCS-PLC).

With a networked system structure, the individual devices are connected within a network with a central unit, which serves as a central configuration point and sends alarms from the entire network. The individual devices can, however, monitor the alarms of their own controller, send these independently and also report failures in the communication-connections-this is particularly possible because the configuration of the control centre (persons, mobile etc. and standby duty plan) is continuously transferred into the individual devices.

In addition to processing alarms transmitted from controllers via Modbus TCP or via digital or analog signals to STEBalarm, STEBalarm also receives alarms from process control systems via the ESPA 4.4.4 interface. In addition, STEBalarm can forward SMS and e-mail messages sent by the control system to the persons responsible. Last but not least, STEBalarm controls telephone exchanges for call forwarding according to the on-call schedule.

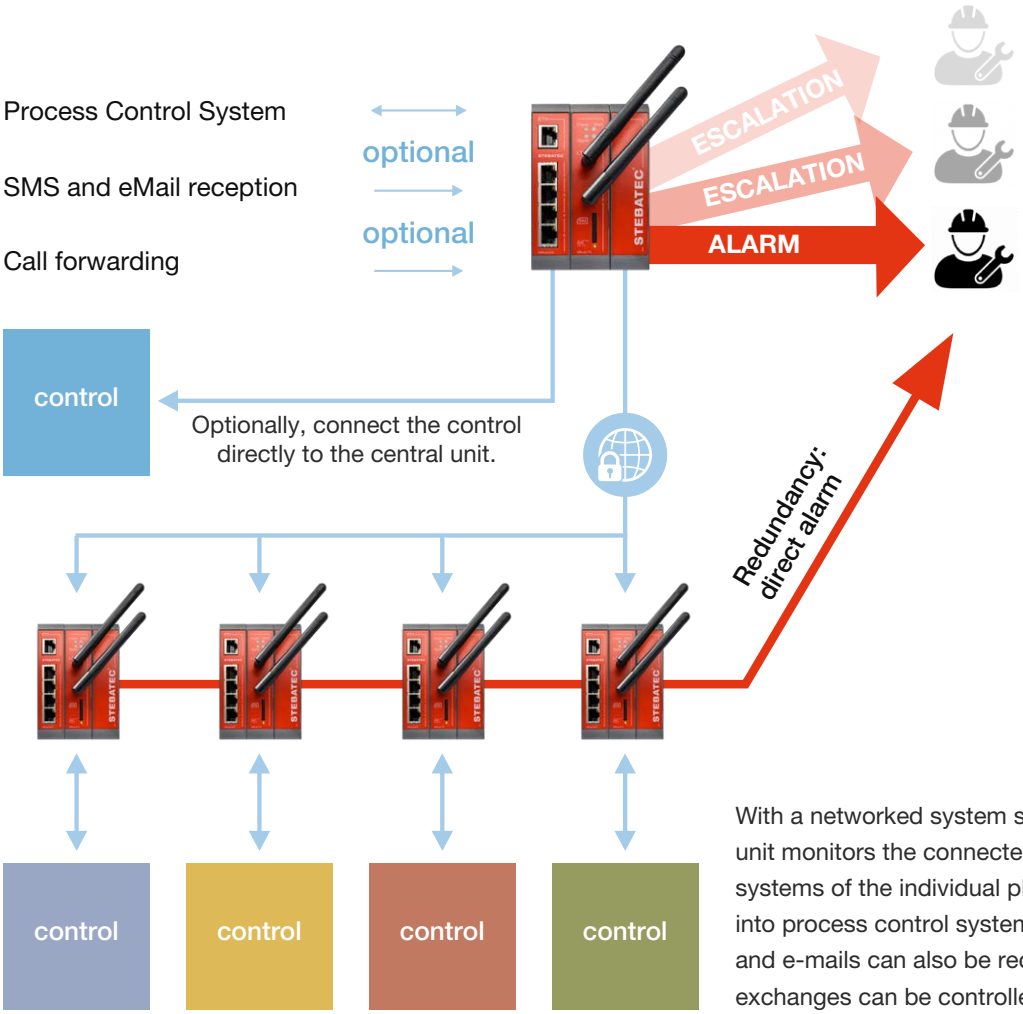
At the choice of the user, STEBalarm alerts via pager, SMS or e-mail.

Single unit



Stand-alone solution: Each STEBalarm system can be used individually and is fully functional.

Networked system design



With a networked system structure, a central unit monitors the connected STEBalarm systems of the individual plants. The integration into process control systems is possible. SMS and e-mails can also be received and telephone exchanges can be controlled.

Operation and functions

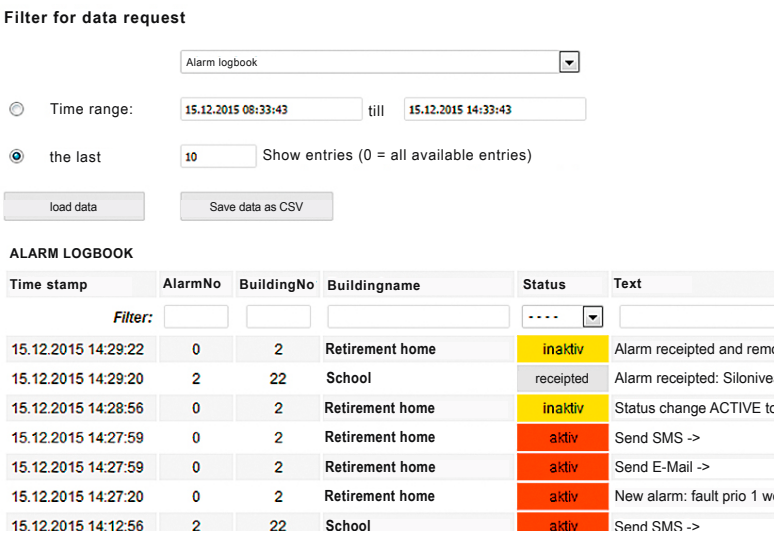
STEBalarm is operated with the web browser on the PC or with the smartphone. The web server integrated in STEBalarm can be made accessible via the internal customer network or, with appropriate security measures, also on the Internet.

Users and their telephone, pager numbers and e-mail addresses can be created, changed and deleted by the operator independently. It is also possible to define which communication channel should be used to contact the respective persons in the different cases.

Alarms, i.e. alarm source, address, text and priority, can be freely created and changed by the user. In addition to the typical digital input or the monitored control word in the PLC, several options are available, such as the monitoring of a measured value, or alarming when limit values are exceeded.

The meticulous recording of active, inactive and acknowledged alarms, of logins and adjustments in the configuration, but also of system status and actions are included in STEBalarm.

STEBalarm displays all faults in the monitored structures. This simplifies the overview and helps to assess the urgency of the measures to be taken.



STEBalarm completely documents all processes in an alarm and a system logbook. This also provides many filter options for search queries.

With a singles click, alarms can be acknowledged or rejected, to be forwarded immediately.

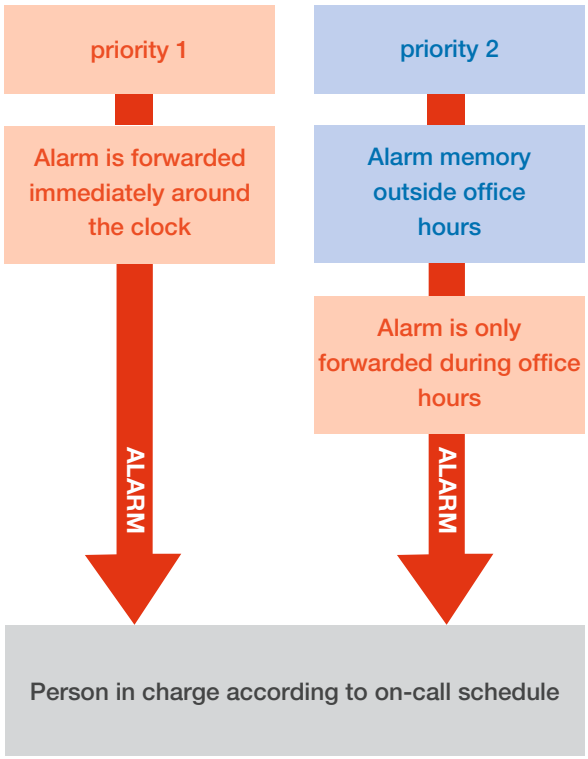
Alarm handling and planning

STEBalarm allows individual on-call planning with hourly resolution. This means that the deployment plans can be mapped (no standard solution from midnight to midnight realistically).

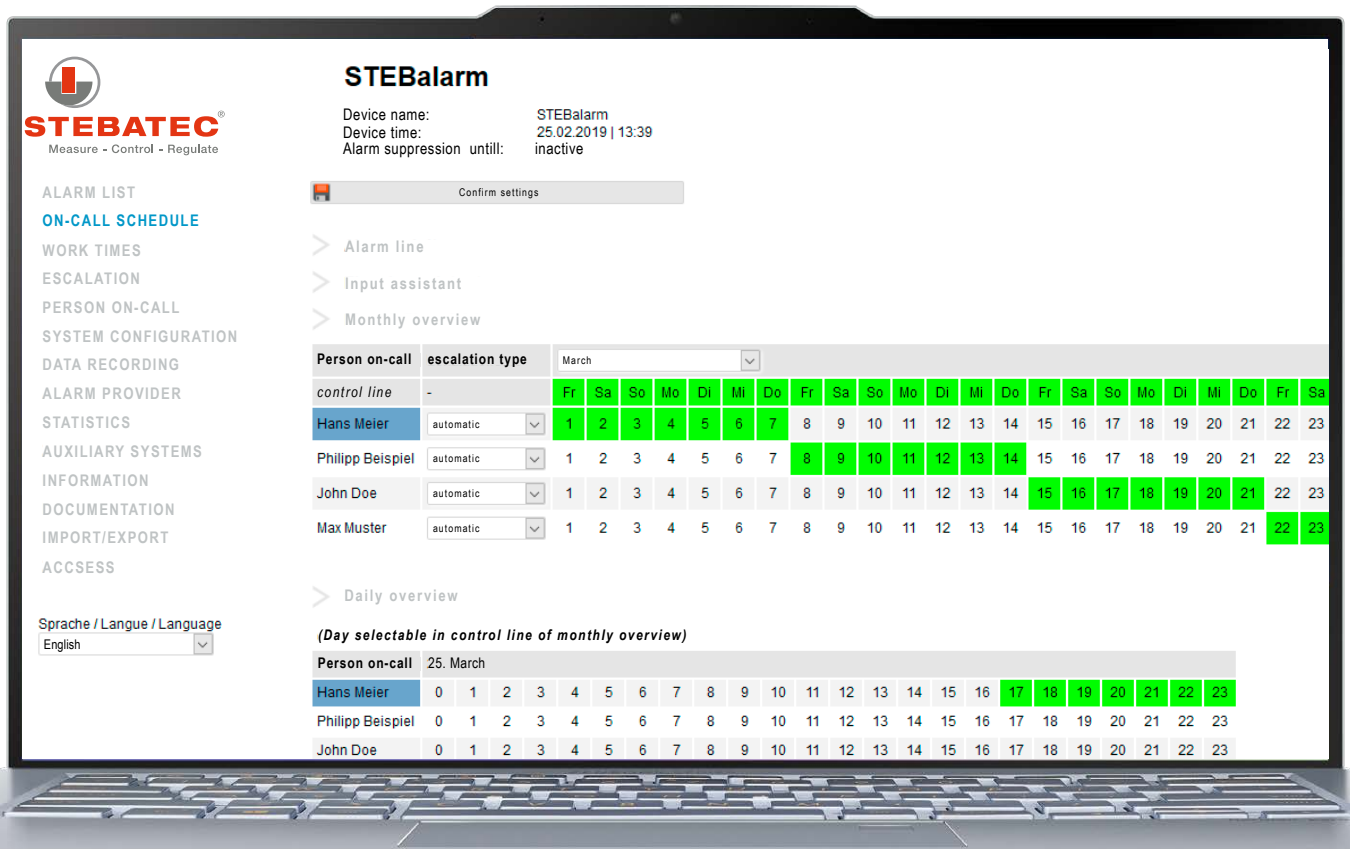
The escalation levels can be defined, whereby additional prioritizations are possible. Depending on the priority, the alarm can be triggered at any time or only during office hours. Critical alarms can also be sent in two different ways to increase security.

During maintenance work, all alarms of a building can be temporarily suppressed in order not to provoke false alarms.

Optionally, a fairness generator can be activated, which first alerts employees with few deployments due to past events.



Alarm prioritization: Urgent alarms are forwarded immediately, less urgent during office hours only.
Below: The standby-duty planning is done via an intuitive user interface, which simplifies the task with input help.



Auxiliary systems

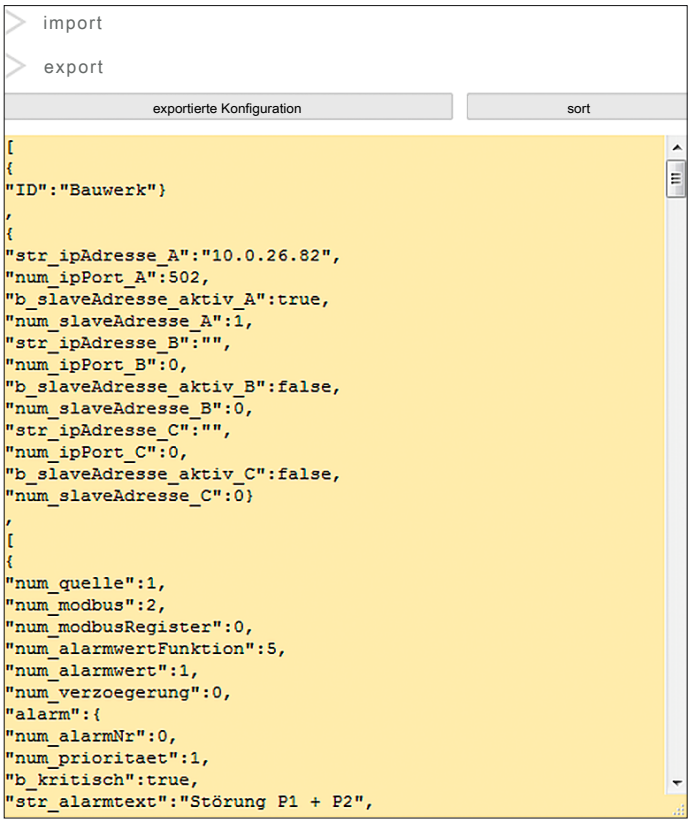
STEBalarm has deliberately been developed as an open, modular and retrofittable alarm system. Thereby it remains open for all expansion possibilities at any time.

There is a large variety of additional systems that can be used optionally. In addition to various plug-ins, this includes a Modbus mapper, for example. A multiclient-capable ModbusMap transfers coils (%M) and input bits (%I) to a coil map (%M) or holding register (%MW) and input register (%IW) to a holding register map (%MW). Communication status queries are possible for each individual element, as well as a collective status message. The Modbus mapper is suitable for connecting single client Modbus devices that are additionally networked with other systems (e.g. PCS), or if many different Modbus/TCP alarm sources are available.

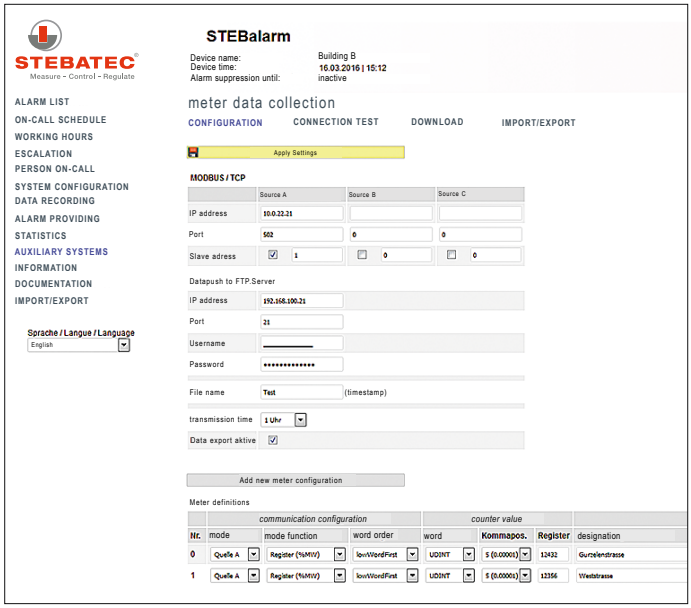
STEBalarm also allows meter data acquisition via M-Bus (with Solvimus M-Bus Master) or Modbus. There are various readout modes, the data are stored on a server.

STEBalarm offers further functions, such as exporting the configuration of the STEBalarm system and the additional systems in JSON format. Conversely. exported or manually generated configurations can also be imported.

And finally, further customer-specific adaptations are possible at any time on request. Because flexibility is a top priority at STEBATEC.



Exported configuration in readable JSON format.



Additional systems, for example, allow meter data collection.

Plants equipped with STEBalarm

BKW AEK Contracting AG
The leading energy supplier operates around 100 central heating stations, which had their own independent alarm solutions.

With STEBalarm, all systems could be integrated into a single solution. The REbella process control system and the process visualization facilitate operation even further.

Wastewater treatment plant Meiringen
The plant purifies the wastewater of the municipalities of Meiringen, Hasliberg and Schattenhalb with a population equivalent of around 13,000. All plant components are equipped with the STEBalarm alarm system, which is integrated into the ARAbella process control system from STEBATEC.

Wastewater treatment plant Le Landeron
STEBalarm and the ARAbella process control system monitor and control the plant in which the wastewater of the municipalities of Le Landeron, La Neuveville, Lignières and Nods with a total population equivalent of around 15,000 is treated.

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