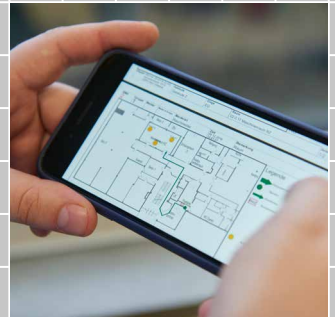


Experts in fire protection

MINIMAX

Inveron Hazard management system



TECHNOLOGIES

HAZARD MANAGEMENT SYSTEM

Inveron – safety at a glance

The Inveron hazard management system from Minimax displays information from various systems clearly on a user interface. For spacious and complex production or building structures in particular, responsible persons can quickly see all relevant data from fire detection and extinguishing systems and other hazard detection systems. They are therefore able to make the correct decisions in stressful situations.

Inveron offers a high degree of clarity by bringing together all messages and events automatically in a user-friendly interface with clear graphics. The current status of control points can be displayed graphically, textually or as an animation. This applies both to messages for above and below threshold values, which are displayed in real time.

The rapid localization of a problem is crucial in preventing operational downtimes. Inveron helps those responsible to make correct decisions in case of fire or malfunction. Targeted action is possible and the highest level of safety is guaranteed.

The system provides the operator with comprehensive continuous information such as reports on maintenance work and helps with on-screen messages. Action procedures can be stored and will be dependable guide to the necessary actions.

Internal processes become more efficient and safer.

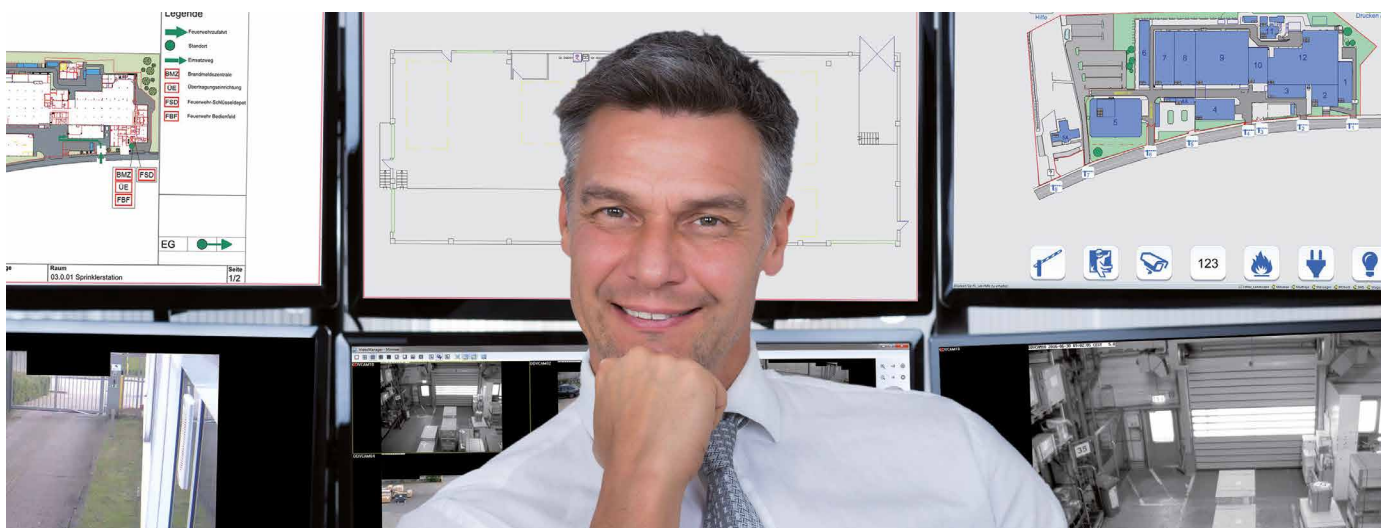
Monitor globally, operate locally: With Inveron, several locations belonging to a company can be incorporated into an overall system, whether on the other side of the street or on another continent. Distances make no difference.

Authorization administration and data supply are centrally controlled. Each location only sees the information intended for it.

Authorized operators can access all locations at any operator station and get a comprehensive overview. Operation is the same everywhere. It is possible to switch messages to another location if a security point is not manned.

The information can be received by SMS or E-mail.

Minimax can assist with service access for troubleshooting.



Flexibility via system independence

Inveron offers a multitude of interfaces through manufacturer-independent integration of detection points of a wide variety of fire detection and extinguishing systems and other hazard detection systems.

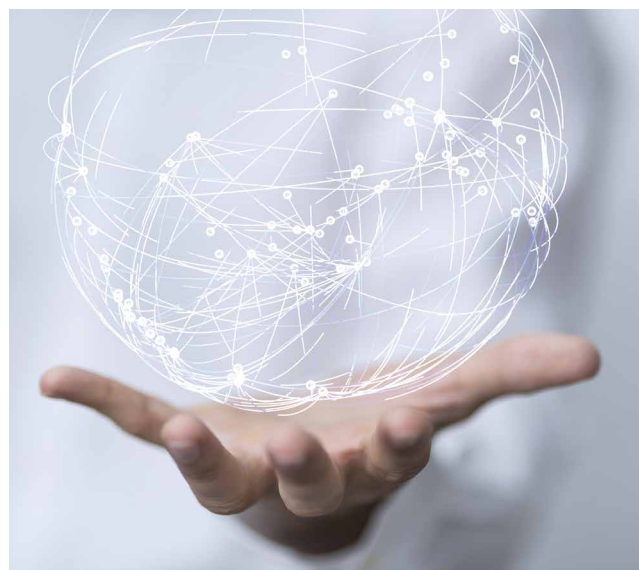
A proprietary protocol is used for communication between the Minimax fire detection control panel and Inveron. The protocol provides complete data exchange and permanent coordination between the two systems. This provides a quicker and, in turn, a more cost-effective integration of detection points – programming and system setup costs are low.

A number of fire protection systems from other manufacturers can be interfaced: for example

- CCTV video monitoring as a way of verifying fire detection
- gas detection control panels from popular manufacturers via Modbus.

In addition to this, many other systems can be connected via interfaces, for example an intrusion

detection system, perimeter monitoring or gate control. Even open standard interfaces (OPC, Modbus, Profibus, BACnet) are possible. This makes Inveron deployable for the long term, even if fire detection manufacturers or systems change. Furthermore there is a PLC controller for integrating other signals (for example heating, ventilation or fire doors).



Design and function

The Inveron hazard management system includes software and hardware components. For hardware a PC and/or server, desktop- and large-format screens are required and, if needed, cameras and PLC controllers.

Integration of monitoring points

Inveron can combine fire detection and extinguishing systems and other hazard detection systems with several thousand monitoring points. Since it does not matter where these data points are situated, various company locations can be monitored from a central position. The functionality and graphic structure of the user interface are individually determined and then implemented in a customized set up; this means each customer receiving action texts specific to them.

Alarm

Inveron provides both above and below critical threshold messages, which are continually shown in real time.

Threshold violations are immediately shown in the form of event messages and the process related to the event is initiated. Individual technical drawings of the detectors can be shown for each event. Action texts show the operator the steps to be initiated. Up to five (animated) graphics can be stored; operation is also possible from the graphics.

Forwarding the signals

When there is an event the signal is processed immediately and forwarded to both the permanently attended place and other workplaces, service employees or on-call service.

The message is sent by SMS or E-mail. An iOS- or Android-app enables easy access. Each location and user can have specific rights assigned. Irrespective of location, all persons authorized in this way will have the message on hand straight away and can immediately initiate the necessary steps. The display of the messages can be configured to the individual customer (for example in multiple languages) and contains detailed information on detector, location and type of message.

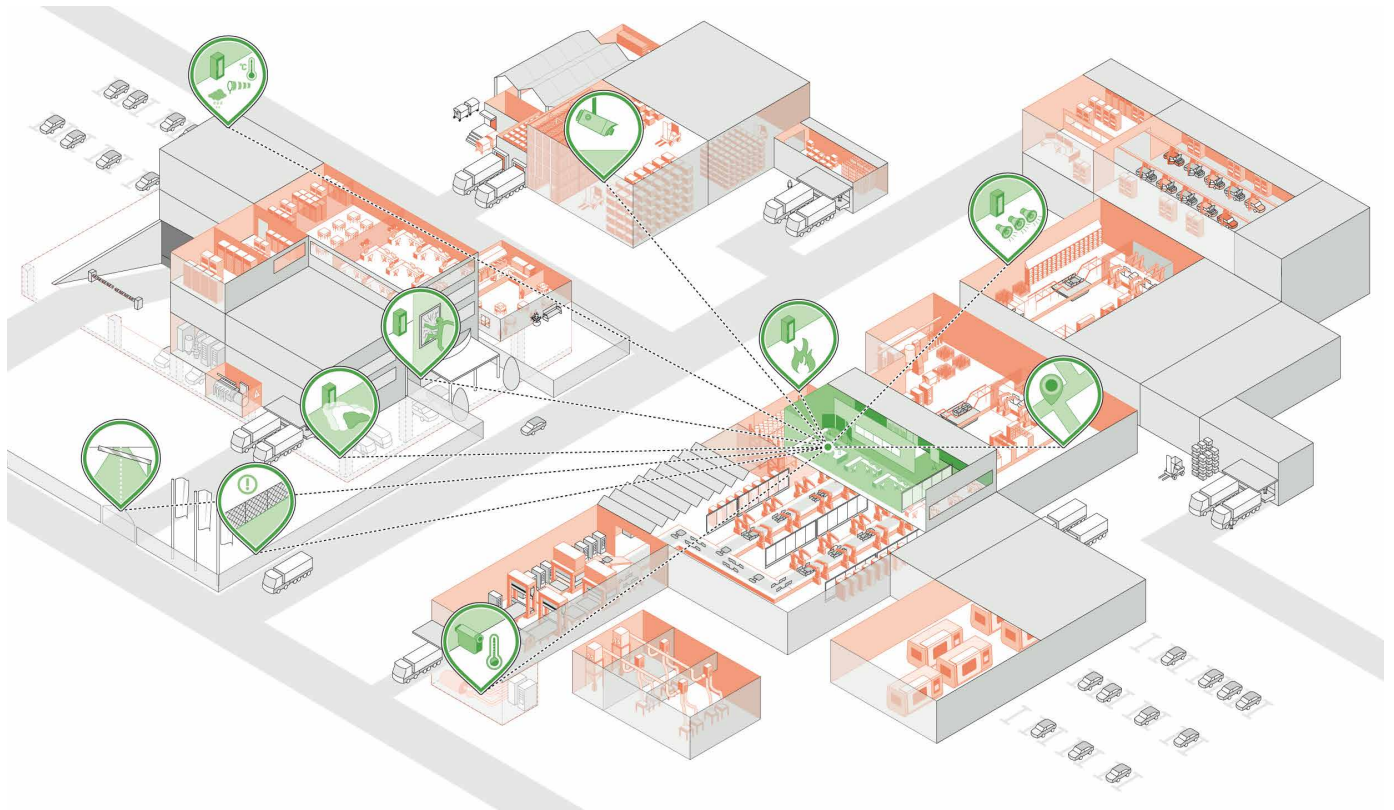
Adapting the surface

The user interface can be individually configured. In the open edit version changes can be made to the operator interface by the user at any time. The integration of vector graphics, for example of AutoCAD, pictures or video/camera streams, provides a detailed display of events. The current status of control points can be displayed in graphics, as a text message and an animation.

Documentation

All events such as status changes, messages and user inputs are automatically logged. This data can be used to generate reports. There is an option to create a PDF report directly from the message handling. The graphic display of the data offers a quick overview of relevant indicators. The size of the archive is limited only by the size of the hard drive.

Integration of several systems in a company

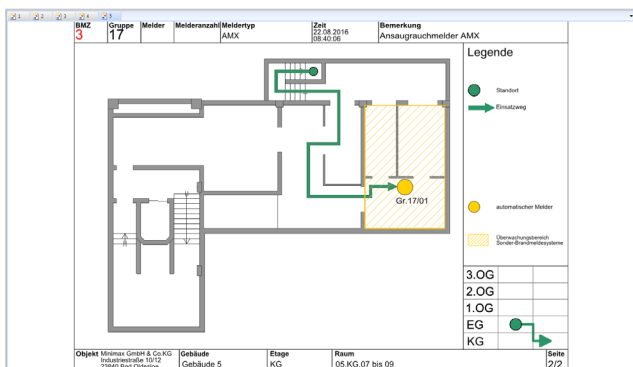


Design and function

Efficient automatic generation of fire department route cards

The information available from the system allows the efficient generation of route cards for the fire department. The required data is located in a central database, thus requiring minimal data maintenance. This enables the route cards to be regularly updated (the route cards must not be older than two years).

In the event of fire the current tickets are automatically printed; they are available when the fire department arrives. Depending on the fire department's equipment, a job ticket can also be transmitted to a tablet in the emergency vehicle. This is particularly important for unoccupied buildings.



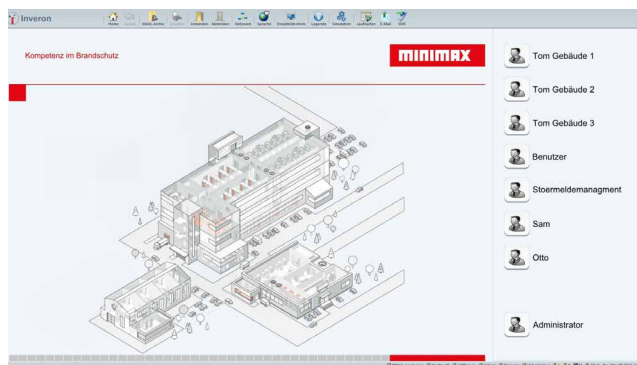
Interactive fire department route card



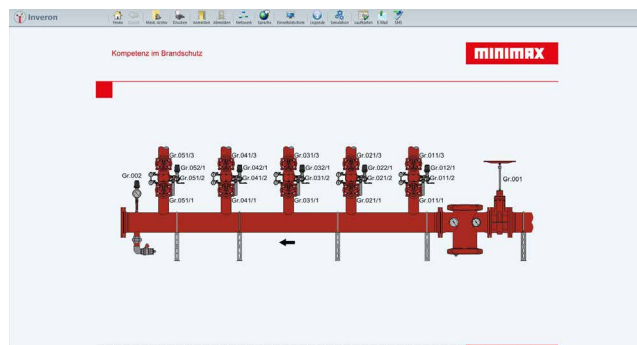
Fire department route cards are used upon activation of the alarm to show the fire department the way from the fire detection control panel to the activated fire detector. The fire detectors are assigned to a fire detection control panel detector group on the fire department route cards. In addition to this the fire department key depot, the building access and the location of the fire detection control panel, public alarm transmission device, fire department operating panel and fire department display board and all facilities relevant to the fire departments are marked in. This means that one fire department job ticket is required per fire detection control panel detector group. These are each drawn up specific to the object and are located in the immediate vicinity of the fire department contact point, in a storage box. Additionally the current version is automatically printed. Fire department route cards are one of the prerequisites for connecting the fire detection system to the fire department responsible.

Inveron can be used in all areas of industry and is individually adapted to relevant requirements and special hazards.

It is the ideal solution when extensive factory- or works premises or complex production facilities with a high number of monitoring points have to be controlled and hazard detection systems from various manufacturers are in use.



Customized interactive user interface



Display of a sprinkler valve station

It is possible to monitor other locations in real time from a single location. At the same time detectors for individual applications or crossapplication detectors for entire sites can be integrated.

Examples:

- Automotive plants
- Recycling plants
- Wood processing plants
- Warehouse buildings/logistics centers
- IT/Telecommunications
- Vessels
- Airports
- Wind energy plants
- Power plants
- Steel plants
- Office and administration buildings

Arguments for Inveron

- Cross-system integration of all messages in one interface
- Clarity via visualization
- Simple and uniform operation of all connected systems
- Rapid localization of fire events and failures
- Stored action instructions prevent mistakes in stressful situations
- Efficient generation of route cards
- Location-independent monitoring, even on mobile end devices
- All events can be evaluated via automatic logging



Photos

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