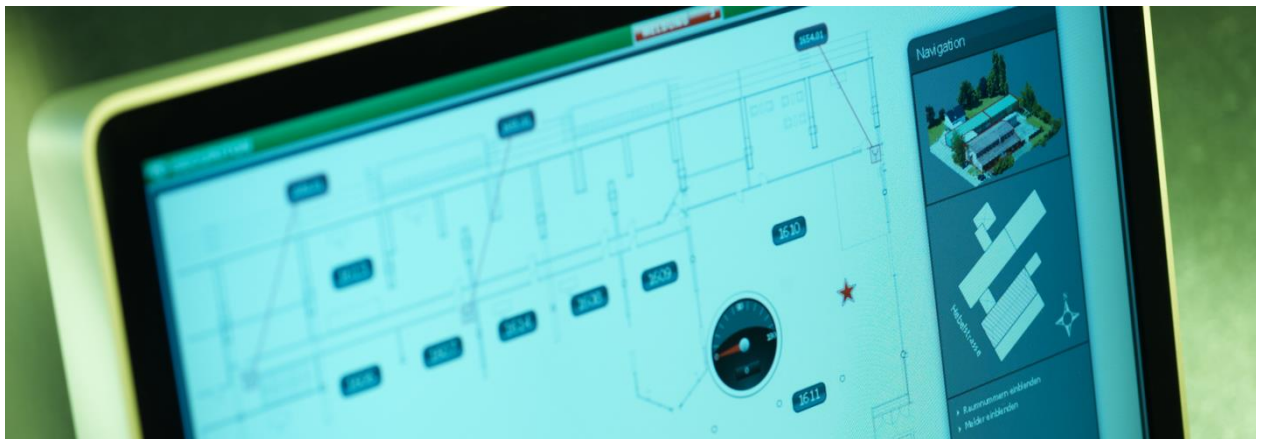


UMS

Functional Description



Imprint



Notice

This document, T 140 043, is valid only for the product described in Section 1.

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Some words in this documentation are highlighted in **blue**. These terms and designations are the same in all languages and are not translated.

Users are encouraged to contact the editor/publisher if there are statements which are unintelligible, misleading, incorrect or contain errors.

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This document, T 140 043, is available in the following languages:

German	T 140 043 de
English	T 140 043 en
French	T 140 043 fr
Italian	T 140 043 it

Current edition: Index 09 21.08.2020 Hus

Other documents



Software version

This document is valid for the UMS (Universal Management System) with the following software version:

Release 12.0 and later

Safety information

If the product is used by technically trained and instructed persons in accordance with Technical Document T 140 043 and if the danger, safety and general information in this Technical Document is observed, there is normally no danger to persons and property when used properly.

National and state-specific laws, regulations and directives must be observed and adhered to in all cases.

Below are the designations, descriptions and symbols of danger, safety and general information notices as found in this document.



Danger

Danger to persons and/or property may result from the product and any system parts if danger notices are not heeded. If the product and/or its parts become damaged and cause malfunctions, there is also the risk of injury to persons and damage to property.

- Description of which dangers may occur
- Measures and preventative actions
- How dangers can be averted
- Any other safety-related information.



Warning

The product may be damaged if the safety information is not heeded.

- Description of which damage can occur
- Measures and preventative actions
- How dangers can be averted
- Any other safety-related information.



Notice

The product may malfunction if this notice is not observed.

- Description of the notice and which malfunctions can be expected
- Measures and preventative actions
- Any other safety-related information.



Environmental protection / recycling

Neither the product nor its components present a hazard to the environment provided they are handled properly.

- Description of which parts have environmental protection issues
- Description of how devices and their parts have to be disposed of in an environmentally-friendly way
- Description of the recycling possibilities.

Document history

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1 General

Securiton management systems are developed in Switzerland using current state-of-the-art technology and founded on the latest scientific findings. Due to the continuously growing number of installed systems, our products are being constantly adapted to new requirements and improved.

The high quality of Securiton products is documented in accordance with the ISO 9001 quality assurance system for all company areas (from development, production and sales to mounting and customer service).

Project planning of management systems as well as mounting, commissioning and maintaining products of the installed systems require specialised expertise and therefore may be carried out only by trained specialists. The product-specific training of qualified personnel is to be provided by Securiton or by persons expressly authorised to do so by Securiton.

In addition it is imperative that the country-specific regulations and guidelines for the planning, installation and use of the products be observed and complied with. Damages and consequent damages caused by intervention or modification of our products as well as improper handling are excluded from our liability. The same applies to improper storage or other external influences.

We expressly state that the management systems must be periodically serviced by approved, qualified and certified personnel to ensure the long term functional and protective scope.

Personnel must properly maintain the systems to ensure long-lasting functionality and protection.

The descriptions and technical data in this document correspond to the edition date of this document. We reserve the right to implement changes, particularly where such changes are justified by technical progress. The images of products may visually differ from the delivered products due to continuous development.

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2 System concept

2.1 General



The UMS is the intelligent nerve centre for the integration of every type of subsystem. It lets you monitor and control fire and intrusion alarm systems with ease as well as access control and video surveillance, not to mention a multitude of other installations. Using one or more monitors you have a complete overview of all these systems – including their states, messages and alarms. UMS really comes into its own when an alarm is signalled. It automatically instructs the user on the appropriate measures and, with its detailed alarm graphics, provides all the photos, plans, alarm sites and other alarm-relevant information.

2.2 Design

The unique UMS design offers a broad range of conceptual implementation possibilities.

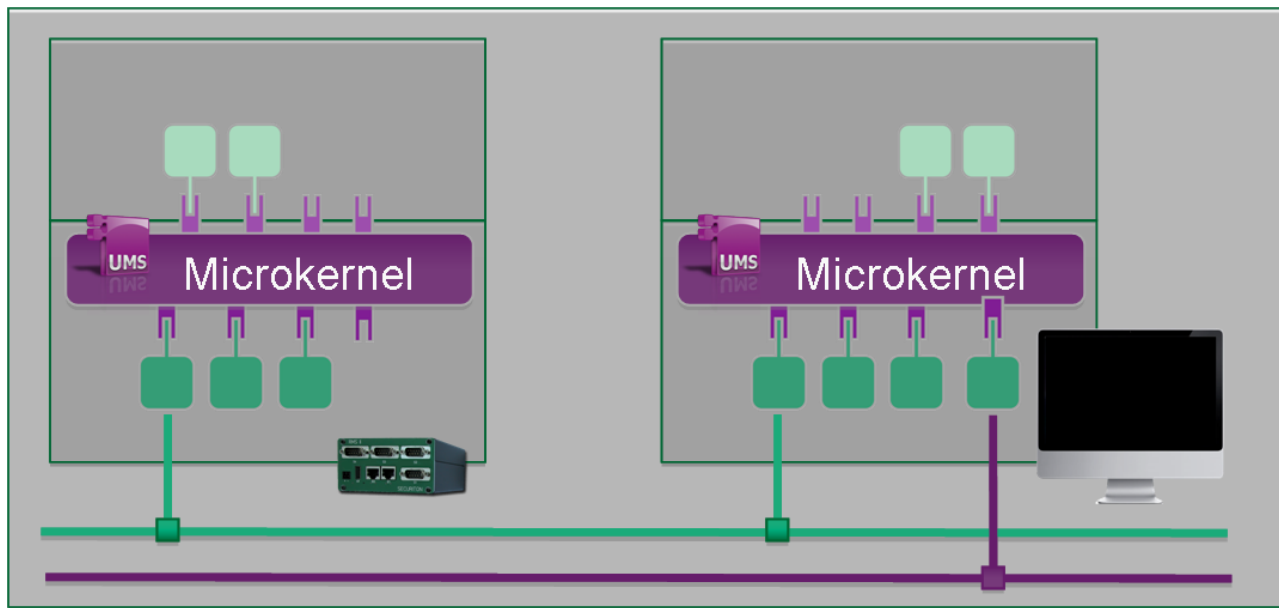
2.2.1 Single server applications

UMS can be integrated into a classic client-server architecture. Theoretically, any number of UMS clients can be connected to a UMS server (depending on the available network and computer performance). Subsystems (intrusion, fire detection, access control systems etc.) are connected directly to the UMS server or can be connected remotely to the UMS by means of an SAS server (Subsystem Adapter Service). The networking of all these components is designated a single domain.

2.2.2 Multi server applications

Single domains can be networked in a multi-domain design. The simplest scenario is a project consisting of single servers, each of which can run autonomously on its own (individual failures do not cause an overall failure of the system). Each of these servers can be configured with one or more clients; this permits the representation and monitoring of the connected systems and data points. The concept can be expanded with super clients, which enable all-inclusive domain monitoring of all systems and data points.

2.3 Distributed system



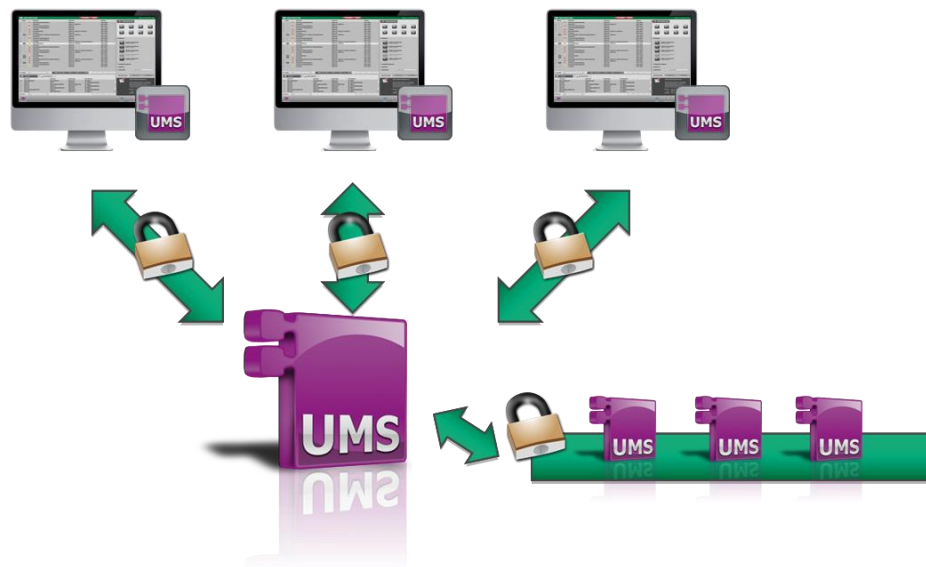
The service-based architecture enables the UMS to distribute various functions to various computers. This means that optimum load distribution for large projects is possible, and it enables targeted outsourcing of functions to other locations and computers.

2.4 Modularity



We live in fast-paced times. Because not even we as specialists can foresee what will be required in the future, we have consistently designed the UMS with modularity in mind. This facilitates fast and efficient expansion of the UMS with new functions, other databases, future interface standards and encryption technologies. Only modularity on this scale can guarantee investment protection for you the customer.

2.5 Secure communication



We at Securiton know that only the highest possible security level is good enough for the UMS. This is why all communications between the UMS server and its clients as well as amongst the various UMS services are authenticated and encrypted for dependable security. All insider offences and hacker attacks are prevented with appropriate measures.

2.6 Interface optimised for the user



Securiton has invested the UMS operating concept with many years of management system experience. Thus, a key visual aspect of the operating concept is making it easy to see what is important at a glance. In the event of an alarm the user is under pressure and should be guided through the system with maximum ease. This is achieved with an optimally designed user interface. Pop-up windows which open to provide important information are unacceptable to Securiton. Securiton's UMS is faster and more direct: clicking a message shows the user an overview of the entire danger situation on one or more monitors. The UMS synchronises and displays the information relevant to the message – type and location of message, measures, graphics and video image etc. Also, there are no function-preventing entry prompts which, for example, could prevent alarm processing only because an entry of some sort still needs to be confirmed with the OK button.

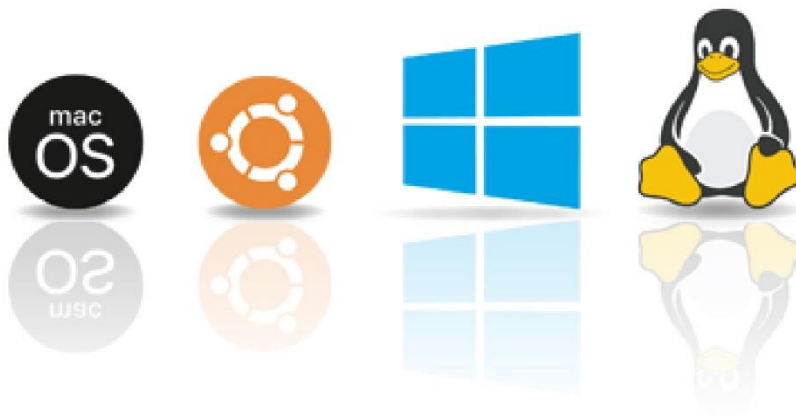
Safety and security – UMS's top priority.

2.7 Languages



The UMS was designed to be used anywhere in the world. Thus we have optimally implemented the language concept. In addition to creating new languages, it is also possible to use multiple languages in the same project. The UMS concept not only lets you switch the user interface language, it also offers the unique option of having project data in multiple languages within the same project. This enables the UMS to be used as an inter-regional, cross-language management centre.

2.8 Platform independent



Windows, Linux, or Mac OS? Which is better? We don't ask this question any longer. This is why the UMS has been developed to be virtually platform independent. A platform-independent style guide was defined to ensure that the UMS has the identical appearance on each platform. Even if different platforms are used in the same project, the user interface always appears the same.

2.9 Limitation

No fixed limitation is programmed into the UMS product. Only in this way is it possible to enable flexible scaling, from simple local networking to a globally networked system.

2.10 Certifications

2.10.1 ISO 14001

The Securiton AG company is certified in compliance with ISO 14001:2004. ISO 14001 forms the basis for optimising environmentally relevant processes and minimising risks and environmental impacts within the company.

2.10.2 ISO 9001

The Securiton AG company is certified in compliance with ISO 9001:2008. ISO 9001 forms the basis for the continuous improvement of the management system and process management, and also helps to lower costs.

2.10.3 ISO 18001

The Securiton AG company is certified in compliance with OHSAS 18001:2007. OHSAS 18001 improves the safety culture, increases productivity (less working days lost) and increases the appeal of the employer.

2.10.4 VdS 3534

The SecuriLink UMS (Universal Management System) was the first Swiss building management system to be certified compliant with VdS 3534 directives (because the UMS software is always updated in the update cycle, the certified UMS version must be requested from the manufacturer). The VdS Schadenverhütung GmbH (Association of Indemnity Insurers, Germany) acknowledges the high quality of this versatile management system software.



2.10.5 EN 50518

The current version of this standard consists of three parts; certification is possible only within a project. The SecuriLink UMS universal management system was certified compliant with standard EN 50518 Part 2 by the VdS test centre (because the UMS software is always updated in the update cycle, the certified UMS version must be requested from the manufacturer).

3 Product variants

UMS is available in diverse product variants. All product variants are compatible among themselves. An easy exchange of licenses makes it possible to upgrade from the entry-level variant UMS Basic to UMS Lite as well as from UMS Basic and UMS Lite to UMS Advanced.

3.1 UMS Basic

UMS Basic is the entry-level variant. As a single-user system it provides a maximum of two interfaces (Basic package: one interface) for the integration. A control panel or central ring can be connected to the interface. The maximum configuration permits integration of up to 1,000 data points (Basic package: 500). This entry-level package includes all the relevant sub-applications; these include the Message list, Data point list, Graphics display and Journal.

3.2 UMS Lite

While UMS Lite is also designed as a single-user system, it can be expanded by an additional client (option). Thanks to the maximum three interfaces (Basic packet: 2 interfaces), UMS Lite is suitable for integration into complex projects. The number of data points is limited to a maximum of 10,000 data points (Basic package: 5,000). Here, too, all relevant sub-applications are included in the package (Message list, Data point list, Graphics display and Journal).

3.3 UMS Advanced

The UMS is designed for large projects and is ideal for multi-user systems in which several interfaces and an unlimited number of data points can be processed (Basic package: 20,000). By purchasing licenses individually, the entire system can be optimally adapted to customer needs in terms of performance.

3.4 Language versions

UMS Basic, Lite and UMS Advanced are available in the following language versions:

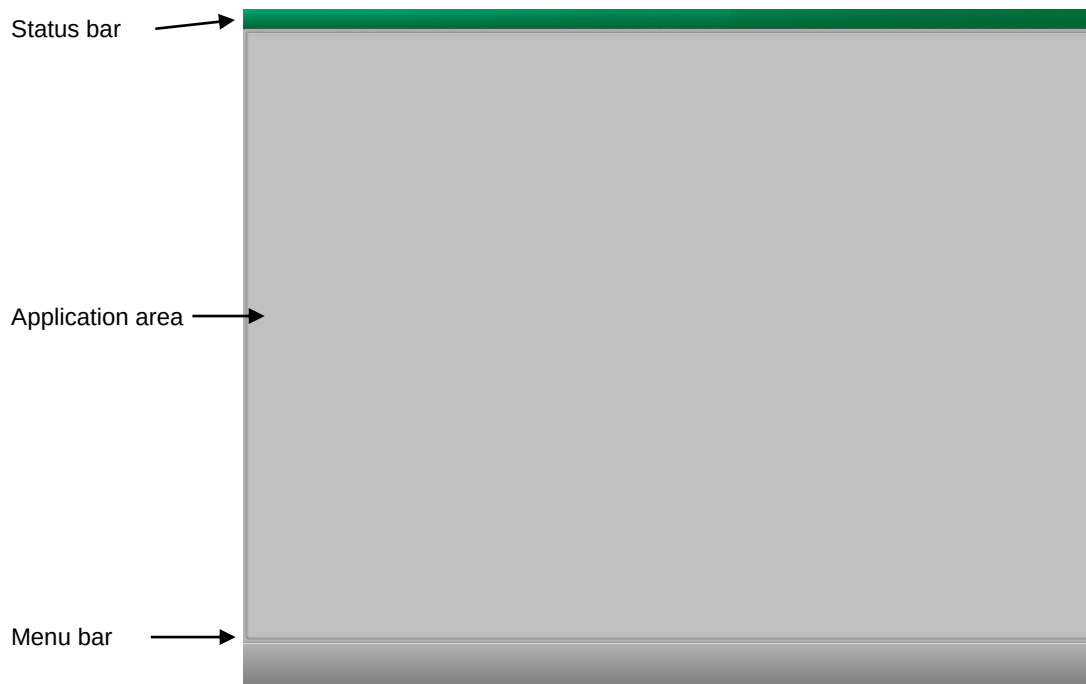
- User interface: German, French, Italian, English, Spanish, Portuguese, Bulgarian, Croatian, traditional Chinese, simplified Chinese, Turkish.
- Editors: German and English

Since some drivers are developed for specific countries, it is possible that these are not available in all languages. For detailed information, please contact the responsible sales person.



4 Design of the user interface

The UMS user interface consists of three parts: the status bar, application area, and the menu bar.



4.1 Status bar

The status bar displays various information and is always shown, regardless of which application is currently in use. It includes the manufacturer's or installer's logo, an alarm indicator, and a date & time display.

The alarm indicator flashes when at least one message is in the message list. It also shows the number of messages in the message list. The alarm indicator colour changes based on the message statuses in the message list. Clicking the alarm indicator automatically brings the message list to the foreground and displays it.



4.2 Application area

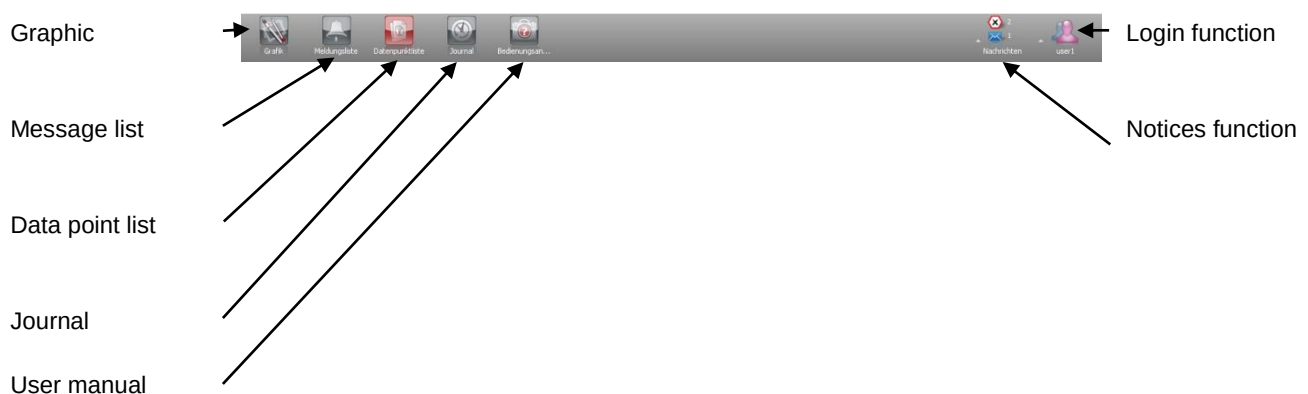


The application window is usually composed of a main, information, control and context window.

4.3 Menu bar

The menu bar provides the available applications on the left side. Included are the graphics display, the message list, the data point list, the journal and user manual, and possibly configured external applications.

On the right side are the general functions irrespective of the current application. A Notices function (currently not used) and a Login function are available. Clicking an application icon displays the selected application. Clicking a function icon executes the function.



5 Graphic



Graphics is a supplementary program for processing messages and is used to visualise alarms, faults and other messages as zones with dynamic symbols on floor plans, building plans and user-definable graphic representations. Messages that are currently active are shown as zones on the graphics.

Two window sizes are possible: full screen or as a minimised view in the main window. You can switch between these two display modes at any time.

The central display element of a graphic is the zone. There are different kinds of zones:

- Message zone
- Data point zone
- Static zone
- Application-specific zones

When a message appears, message zones are shown on the graphics, representing the state of the message or data point. The zone colour is adapted depending on the status and attribute, e.g.: red for alarm, yellow for fault, green for disablement etc. New incoming messages cause the zones to flash until the messages are acknowledged with Q1. The second acknowledgement with Q2 changes the colour to dark blue (processed messages). When resetting a message on the subsystem, the message disappears from the message list and is cleared from the corresponding zone.

A selected area is highlighted. The selection is synchronised with the message list, i.e. when you select a zone with the mouse the cursor also changes in the message list and the correct intervention text is displayed. This also works in the reverse order: selecting a message in the message list calls up the correct graphic and the corresponding zone is highlighted.

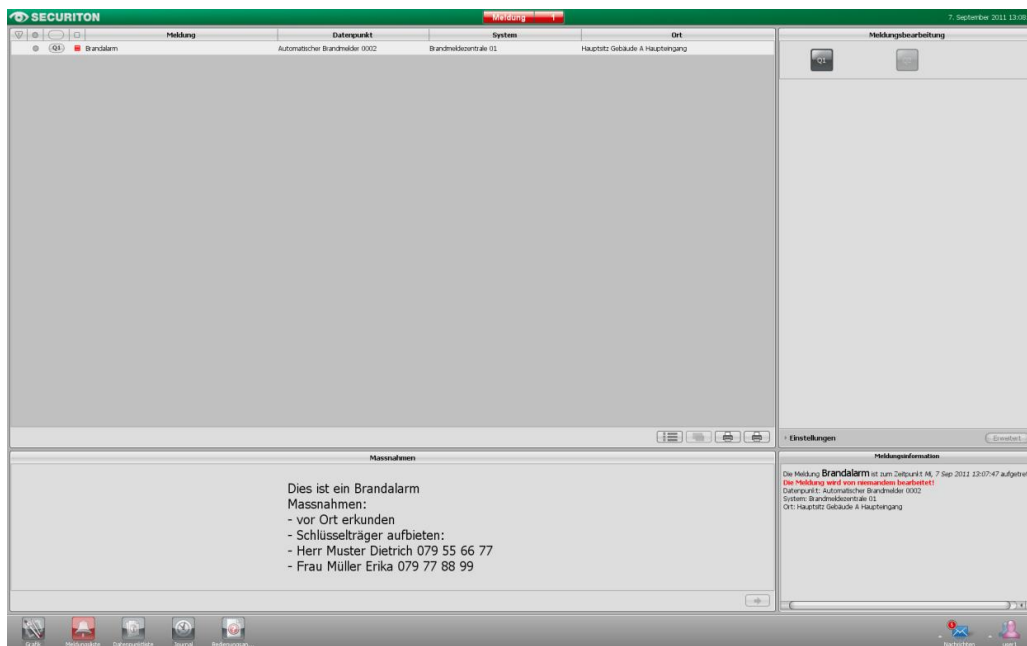
Data point zones are used to select a corresponding data point. The relevant control functions are then provided and can be executed using the mouse.

Static zones are used for navigating between different graphics. Clicking a static zone takes the user to a different graphic.

Application-specific zones are constantly expanded. They allow the most varied values to be displayed from a wide range of sources. For example, analogue values from data points can be displayed on the graphic using the analogue zone. The dynamic text zone allows text to be displayed on the graphic. In doing this, the text can be displayed dynamically during system runtime. The texts themselves can originate or be generated from a wide range of sources (both internal and external).

UMS graphics can be magnified or reduced in size using a zoom function. To trigger the zoom function, position the mouse pointer on the graphics and then actuate the mouse scroll wheel. If the scroll wheel is moved forward with your finger, the graphic is enlarged; in the opposite direction the graphic is decreased in size.

6 Message list



The message list application is used to display events and the relevant measures as well as to process events and trigger responses. Each message is displayed in one line in the main window. The following columns are shown for each line:

- Source status: In this column an icon shows whether the event is still pending. This means that on the subsystem either an event is still pending or has not yet been reset. The icon no longer displays if the event on the subsystem is no longer pending or was acknowledged on the subsystem. If a message with the "DirectReset" behaviour occurs, no icon is displayed because for this message a reset message normally never occurs on the UMS.
- Processing state: The current processing status of the message is displayed here. The following states are possible (see the "Message processing" section):
 - Message has been received but has not yet been processed.
 - Message has been received and read.
 - Message has been received and processed; standby message not yet received.
 - Message has been received and is being processed by another user.
- Event class: The classification of the message is displayed here using coloured icons. The following event classes are present:
 - Alarms
 - Faults
 - State messages
- Event text: This column contains the actual message type.
- Location: This column contains the name of the location where the message was triggered.
- Data point: This column displays the data point name of the data point that triggered the message.
- System: This indicates the system that triggered the message.
- Date/Time: Date and time of the received message.

The context window provides additional message information. The following information is displayed:

- Message entry date/time
- The user who processes the message

Messages in the message list application are sorted according to the following rules:

- Processing status
- By priority and entry (latest or oldest first)

Message processing: an authorised logged in user can select, accept (Q1), process and acknowledge (Q2) messages in the list. Processing (Q1, Q2 etc.) is done with the mouse.

The measures window can be optionally expanded with the note function. This allows for the entry of additional notes on the corresponding event. By using the system states function, the measure texts can also display a different content depending on a point in time (e.g. weekend).

The UMS multi-user concept allows messages to be processed through multiple UMS clients. Thanks to a sophisticated locking mechanism, all users can see the messages – but only one user can process a message each time. If the processing of the message cannot be completed by one user (e.g. shift change), then the message return function is used to make this message available for processing by another user.

6.1 Message return

With the function “Return message”, messages in the state Q1 (i.e. already accepted for message processing) can be “re-turned”. When you return a message, the state of the message is reset to “Unprocessed / not accepted”. Before it can be further processed, the message now must be accepted again with the “Q1” button.

Returned messages are flagged in the message list with a special icon. The notice “*Message return: x*” is shown in the “Message information” context window (the “x” is a number indicating frequency of the message return).

6.2 Message redirection

The “Message redirect” function enables redirecting messages that, due to their filter configuration, are only displayed on certain clients; the messages are redirected to another client that normally does not display these messages and there they are displayed. The message redirection can be cascaded over several clients. Redirected messages are flagged with a special icon in the message display.

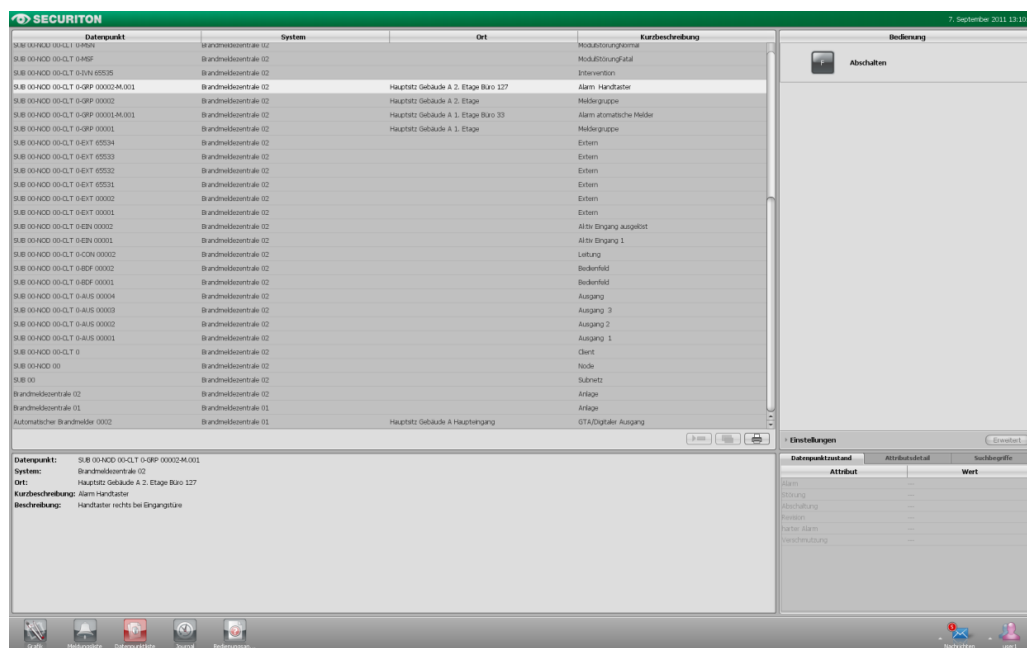
The client redirecting to another client receives a message in the message list indicating the client that received the redirected message. Likewise, the receiving client gets a message indicating the redirecting client.

6.3 Emergency mode

In addition to the message redirect function, clients can also be switched to emergency mode. The emergency mode enables a client to display **all** messages, even those that are hidden based on the configuration. The client on which emergency mode was triggered receives a message in the message list indicating that the function was triggered.

6.4 “Filter journal” quick selection button

From various sub-applications (Message list, Data point list, Graphic), you can select a message or data point and switch directly to the Journal sub-application using the “Filter journal” button. This automatic switch narrows the displayed journal entries to only what is relevant based on the selected data point or system. This makes it possible to find the desired journal entries quickly and efficiently based on the selected data point or the system to which the data point belongs.



Depending on the data point the corresponding attributes, states and commands are then available.

All data points are listed in the main widow (one data point per line). The data points can be sorted in ascending or descending

- Address text – system-defined address of the data point

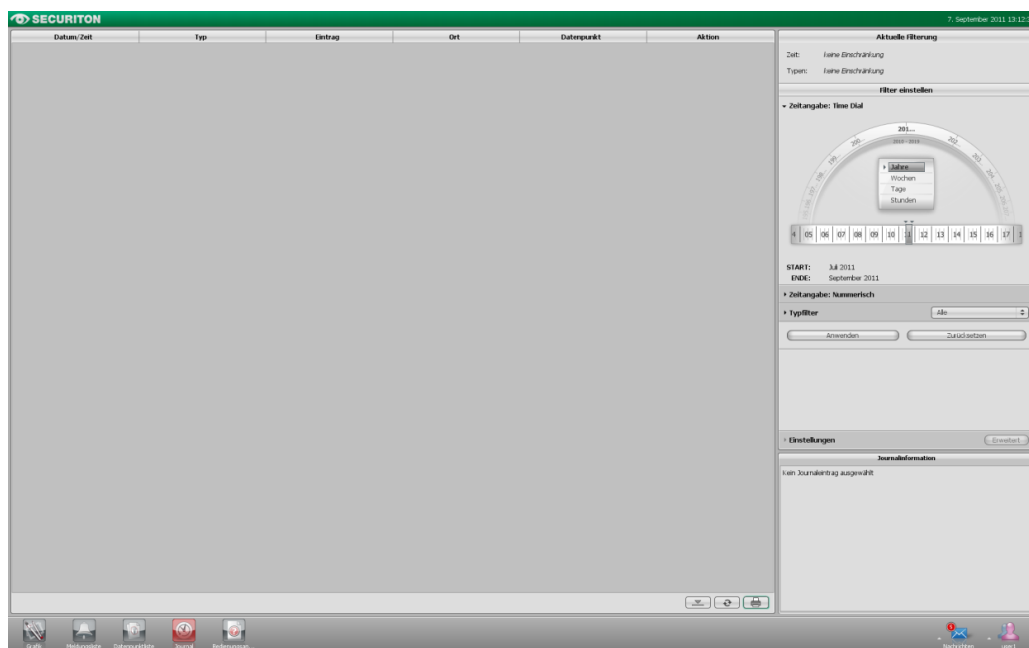
- Address text – system-defined address of the data point
- Description – freely definable text
- Logical address – address of the data point
- Location – freely definable text / location name of the data point
- Brief description – freely definable text

Only relevant commands are shown and made available to the user (state-dependent display of commands). This means that

By using the keywords function, the data point list can be localised according to customer-specific criteria. For example, by

selecting the keywords “Fire alarm control panel” and “Branch 1” the data point list is filtered so that only data points which match both of these keywords are displayed.

8 Journal



All messages received by the UMS (e.g. alarms and faults) are logged in plain text in the journal and include message type and message location. Date and time of the event trigger as well as when the message was received by the UMS are logged accordingly. All actions that concern a message are also logged with the date, time and name of the logged in user (e.g. receiving the message with Q1, acknowledging the message with Q2, resetting the message on the subsystem, etc.).

Saving and displaying message reports is also possible. The message reports are saved in such a way that subsequent change is not possible.

Every entry can be configured in the journal with macros for special functions. This enables initiating functions directly from the journal. For example it is possible to playback the relevant video sequence of a video system connected to the UMS (by initiating a command from the UMS journal) after the subsequent evaluation of an alarm.

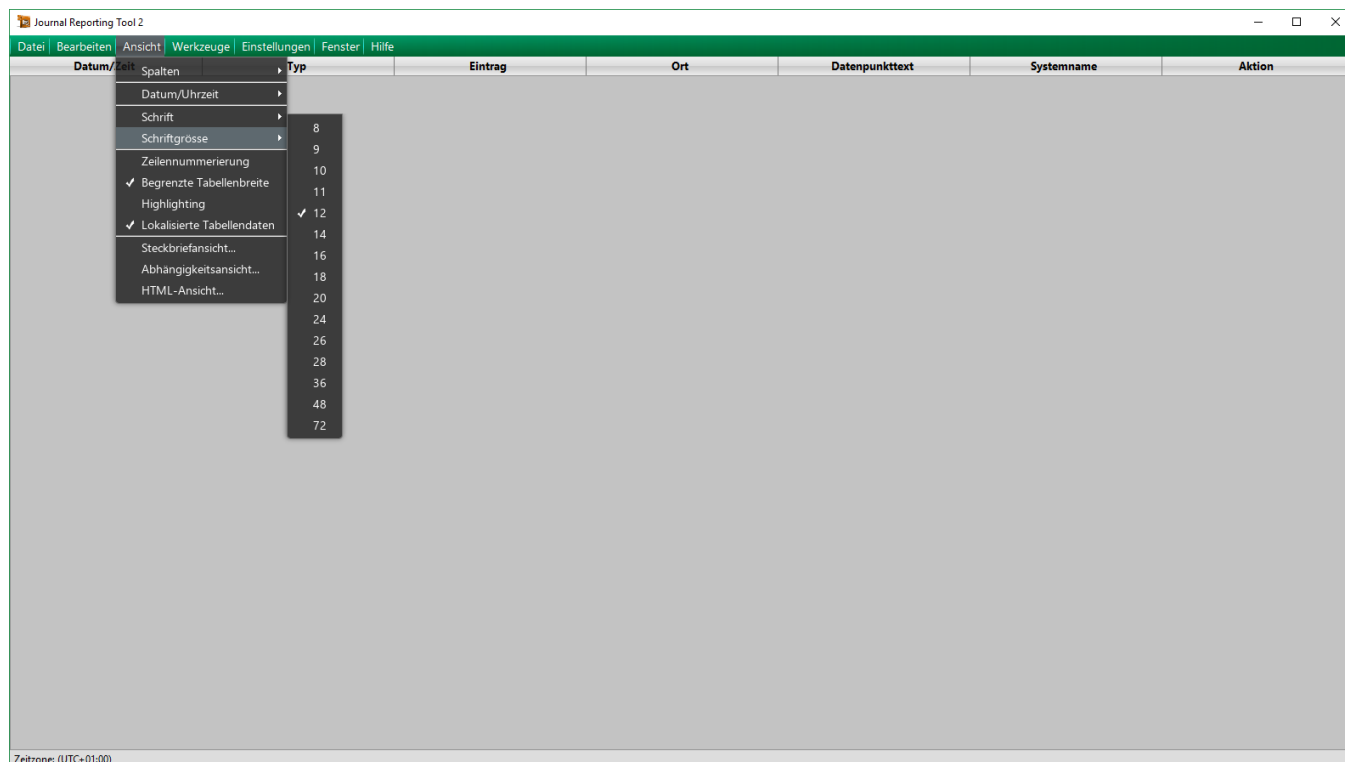
Every message arriving on the UMS is assigned a consecutive number. Thus, all actions that concern a message can be selected during evaluation.

The journal data can be easily evaluated by means of various filters. Date-time filters can be set using numerical keyboard input or with the mouse and the unique time dialler. Data can also be filtered using the type filter. The following types are available: alarm, event, response, system information, command, interaction and state.

The journal data (filtered or unfiltered) can also be exported to an Excel file for further processing and supplemented with graphs and diagrams.

9 Journal Reporting Tool 2

All occurring events of the UMS are saved in the Journal. Using a backup mechanism, the journal data can also be written to a dedicated directory or backup medium as signed files. These can then be analysed and evaluated on any offline PC using the Journal Reporting Tool 2.



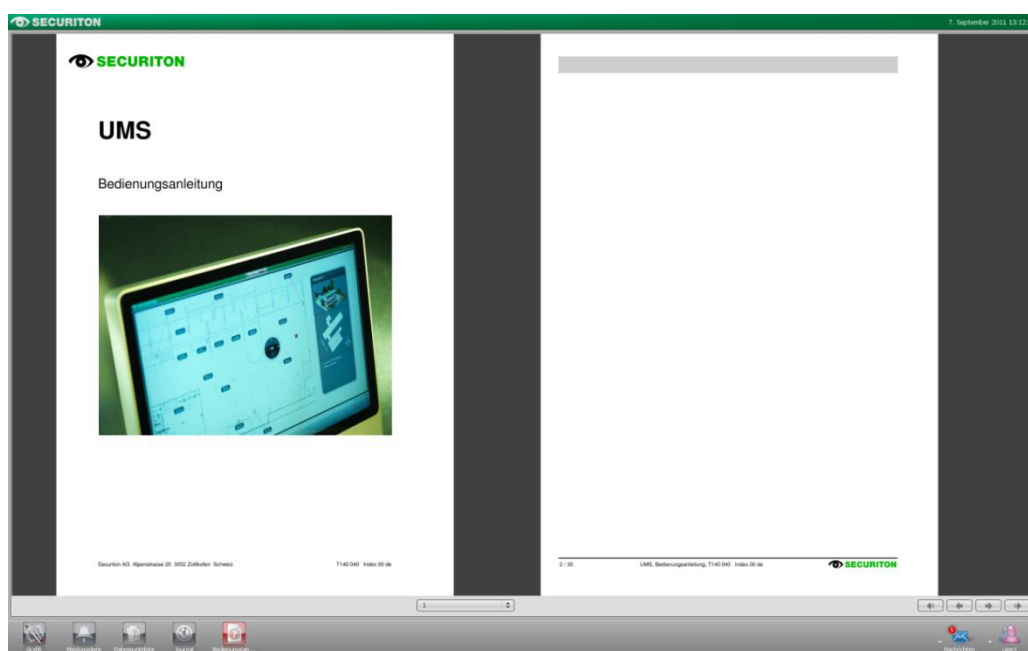
The Journal Reporting Tool 2 is a standalone program that enables easy evaluation. The user can filter an enormous amount of journal data easily according to their needs.

In doing so, boolean filter links, text filters, type filters and absolute/relative time filters can be used. The compiled filter combinations can be saved as a filter set and then loaded again for filtering future journal data. By using relative time filters, the recurring evaluation of journal data is greatly simplified (e.g. number of alarms in the last month).

Journal data can be displayed and printed as reports in PDF format. By adding new reports, the tool can be adjusted optimally according to requirements.

Any evaluation can be made in detail through the free configuration of the corresponding display columns.

10 User manual



The user manual function provides help to the user in the language of the user interface. You can navigate Help with the function keys.

11 Functions

11.1 Project languages

The UMS makes it possible to incorporate an unlimited number of different project languages into the same project. Hence, users can log into the system with their desired language and also have all required texts display in the national language of their choice. The following languages are currently supported:

German, French, Italian, English, Spanish, Portuguese, Romanian, Croatian, traditional Chinese, simplified Chinese, Turkish.

11.2 Audible

UMS gives you option of playing a WAVE file when an event occurs, depending on the corresponding message. This flexibility extends to audio differentiation between, for example, fire alarm and intrusion alarm, faults, and even between the fire alarm of detector x and fire alarm of detector y.

11.3 Escalation

The escalation function lets you monitor message processing based on a timer. When a message is received, a timer is started with a defined time; it is stopped by the user processing the message. If no processing takes place within the specified time, this message is escalated and is represented by a special icon in the message list. Also, in this case reactions (macros) can be triggered automatically. These reactions are freely programmable and may consist of several actions (e.g. triggering a remote alarm, closing doors etc.).

11.4 Journal

The UMS maintains two different journals. One journal type is maintained on the UMS server and the other on the UMS client. How many journal entries per journal type can be stored in the loop memory can be defined in the configuration. Also, a journal type filter can be set that defines which types (messages, reactions etc.) of journal messages are to be stored in each journal.

11.5 Workflow

The workflow functionality permits configuration of the system with or without workflow processing (Q1, Q2 etc.).

11.6 Timetables

Timetables serve to define time tracks with time windows (e.g. Monday 08:30 a.m. - 12:00 p.m.). These time windows can also be used to define conditions and can be populated with exceptions using the holidays. The conditions can then be further used, for example, to trigger reactions (e.g. always synchronise time Monday 08:30 a.m. with the exception of 31 December).

Any number of time tracks can be created with any number of time windows per time track. Each time window has a start and stop time, validity specification concerning weekdays, and can be configured with exceptions (not on / only on).

The exceptions can be specified using holiday definitions. Any number of holiday definitions can be created (e.g. canton dependent or country dependent). The holidays themselves can be individually configured manually or can be imported from iCalendar files.

11.7 System states

System states are freely definable situations such as day, night and weekends. These system states are used to adjust the behaviour of the system to different situations (e.g. during the day no faults sent to workstation 1). Any number of system states can be defined.

11.8 Message filters

Message filters can influence the message behaviour of the system. In conjunction with system states, situation-dependent message behaviour can be defined. Message filters can be defined workstation and system state dependent. Messages can be filtered class dependent (e.g. only sabotage messages) or all messages of a certain subsystem.

11.9 Data point filters

Data point filters can regulate the display of the data points in the data point list. In conjunction with system states, situation-dependent displays of the data points can be defined. Workstation-dependent, user-group-dependent, and system-state-dependent data point filters can be defined.

11.10 Macros

The basic principle of macros in the UMS is based on triggering one or more commands on one or more destinations. In this case, the destination is a data point (e.g. fire detector). Each macro can be triggered in a variety of ways. Triggering can be made manually, via time control, as an incoming or outgoing event, according to a state change of a data point, according to changes within the message list, or via the data point list or graphic. The message list offers the following triggering criteria for macros:

- Message accepted
- Message deselected
- Message outgoing
- Message incoming
- Message selected
- Message processing completed
- Message return
- etc.

The data point list offers the possibility of selecting and running macros directly, or even attaching macros to existing data point commands depending on the state. For example, this allows a "Door" data point to provide an additional macro for manual triggering when in the "Doors open" state.

Thanks to this enormous variety of triggering criteria, all requirements for everyday operation can be covered.

11.11 Derivations

The derivations functionality enables customer-specific adjustment of the data points by means of an object oriented approach. Basic data point types can be derived and modified, and data points can be assigned. The following changes are possible:

- Object names, brief description texts and description texts
- Message type, visibility of the message, definition whether message should be displayed in the message list, acknowledge behaviour (with/without Q1/Q2 logic), priority, classification and colour, assigned response commands
- Command names, visibility of the command, sort sequence of the command
- Attribute names, visibility of the attribute, sort sequence of the attribute, state names
- Link assignment of modes of operation

11.12 Display of video data

UMS offers the possibility of displaying H.264 video data streams on the graphic.

11.13 Time monitoring

The time monitoring function monitors the synchronisation of real time clocks of all UMS clients. The function recognises an occurring time drift outside the configured tolerance range and reports "Time difference too high". Additionally, the time synchronisation of the UMS system (e.g. via NTP server) can be monitored for interruption and/or synchronisation timeout. If no synchronisation takes place within a set time, "Missing time synchronisation" is reported.

11.14 Connection monitoring

The "Connection monitoring" function can be activated or deactivated for each UMS client during runtime. When the function is activated, the corresponding UMS client is monitored for connection interruption. The deactivation option makes it possible, for example, to switch off a UMS client deliberately without triggering an alarm transmission.

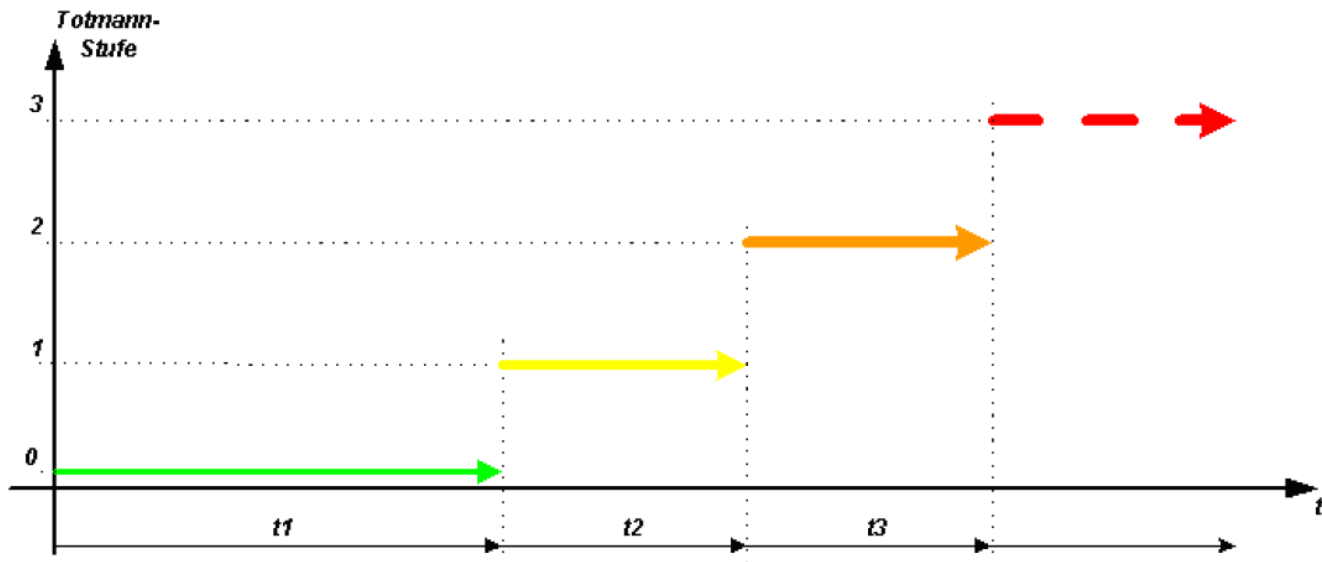
11.15 User monitoring

User monitoring enables the detection of a user logoff on the UMS system for each UMS client. The function can be activated or deactivated for each UMS client during runtime.

11.16 Dead man

Dead man switches concern work safety on UMS systems. Thanks to a cleverly devised logic, the users logged onto the UMS system can be monitored for motionlessness. This logic registers the keyboard, finger on touchscreen, and mouse activities of the user. If there is no activity during a definable time, the user is prompted to confirm presence. If this request is not acknowledged, a pre-alarm appears in the alarm list, and later one or more alarms also appear in the list. The presence prompt can be reinforced with an acoustic signal.

The dead man process has 4 alarm levels (level 0 to level 3); they behave differently concerning activation, characteristic and reset. The timeouts of the different levels as well as the reactions to be executed at the beginning of the levels can be configured. In the menu bar (if configured) it is visible whether the dead man function on the concerned UMS client was configured and whether it is currently active or inactive. The logged in user can activate or deactivate the dead man function during runtime provided the relevant user right is present.



11.17 Modes of operation

Modes of operation serve to switch data points to a certain mode (regardless of the state on the subsystem). The modes of operation influence the behaviour of the data point on the UMS. For example they serve to switch off a data point or to switch to test or maintenance mode. The "Modes of operation" functionality can be assigned to each data point.

11.18 Anomaly / target states

The "Anomaly" functionality serves to monitor all data points for their target states.

For this purpose, the UMS makes it possible to configure target states for individual data points as well as data point types. A target state can be defined for each attribute (e.g. door closed).

If at least one attribute per data point is not in the desired target state, this data point is in the "Anomaly state". In the "Data point list" sub-application, all data points in the anomaly state can be filtered and shown in list form (e.g. all doors that are not closed). This list can of course be further limited using keywords or by manually entering text filter criteria. Hence, for example, you can display all unclosed doors on the third floor of the building.

11.19 Intervention texts

Intervention texts can be in the modern HTML5 format in UMS. A convenient text editor is provided for this purpose in UMS ConfigurationStudio for creating intervention texts in plain text or directly in HTML5 code for knowledgeable users. It is also possible to create and edit intervention texts independently of UMS ConfigurationStudio. In this case only links to external intervention texts are used in the UMS. In this way modifications can be made by personnel not trained in the use of the UMS.

11.20 Note function

A note function can be activated for each message. The note function lets the user enter additional information when an event occurs. These entries are seamlessly logged with an entered text, user, date and time. This enables documentation of a case even when the processing overlaps several changes of shift and involves several users. The information entered by the user is visible throughout the UMS under the pending message list as well as subsequently in the journal.

11.21 Freely definable message reports

Freely definable message reports make paperless alarm management a reality, since the reports normally issued in paper can be replaced by the functionality in the UMS system. The message reports are created project specifically in accordance with customer requirements. The following layout and entry options are available:

- Free selection of text (font, font size, font colour)
- Tables
- Graphics in SVG format
- Check boxes
- Pull-down menus
- Radio buttons
- Entry fields
- etc.

When there is a message, the message report can be displayed and filled in by the user on the system immediately. Processing across changes of shift is supported; this means that it is always clear which user made which change in the report. The message reports are saved to the journal with each saved version until the case is completed. Tracking “who changed what in the report” is therefore not a problem.

11.22 Message lists

With the “Message lists” function, for each UMS client you can define which functionality (e.g. with or without displayed measures, with or without the option to scale sub-windows, which columns are to be displayed) the Message list application should present to the user.

11.23 Journals

With the “Journals” function, for each UMS client you can define which functionality (e.g. with or without displayed message reports, with or without the option to scale sub-windows, which columns are to be displayed) the Journal application should present to the user.

11.24 Data point lists

With the “Data points list” function, for each UMS client you can define which functionality (e.g. with or without displayed data point information, with or without the option to scale sub-windows, which columns are to be displayed) the Data point list application should present to the user.

11.25 Person list

A list of people can be created with UMS. You can choose from 18 different personal attributes (e.g. family name, first name). The representation of the selected personal attributes can be individually configured for each UMS client. Thus it is possible, for example, to represent the person list only on defined UMS clients or to hide sensitive personal data on defined UMS clients.

11.26 External applications

The UMS permits additional configuration of menu buttons (external applications) on the menu bar. A language-dependent menu text, an icon and the type of application (e.g. browser URL, open file, or execute command) can be defined for each menu button.

11.27 Monitorings

With the monitoring function a time-based state monitoring or message monitoring of data points is possible.

For each monitoring you can define which time track (see the “Timetables” section) the time-based monitoring uses. The conditions of the monitoring can be defined with the help of a selectable monitoring type. The following types are supported:

- Type A: During the off period of the time track the system may be activated and deactivated any number of times without causing a “monitoring” alarm.
- Type B: During an off period of the time track, the system may not be deactivated again after the first activation; otherwise, it causes a monitoring alarm.
- Type C: Not only is whether the activation signal is always in the “ON” state monitored but also whether there was at least one “OFF” state in the off periods of the time track. In this way an “ON” state blocked (defective) activation signal can be detected.
- Type D: Here the state of the activation signal is monitored during the activation period as well as the deactivation period of the time track. A tolerance time can also be set for this type.

- Type E: Here the state of the activation signal is monitored during the activation period as well as the deactivation period of the time track. A tolerance time can also be set for this type. Different alarm notifications are triggered in the activation and deactivation period for this type.

Several monitorings able to monitor different states or messages with different conditions can be configured for each data point.

11.28 Users, user groups, user rights

An unlimited number of users can be managed in the UMS with the user management. Each user is listed with first name, family name, account, password, description and preferred dialogue language. Each user is allocated to a user group in which the basic rights are configured. Additionally, assigning rights for each data point command is possible with the following options:

- allowed
- invisible
- blocked
- with password
- dual-control principle (password entry of two users required)

11.29 Gateway

In addition to the already mentioned functions, the UMS platform offers gateway functionality. This enables, for example, all subsystems connected to the UMS to communicate bidirectionally with a third-party system via a standard interface. This function permits a “transformation” of many proprietary subsystem interfaces to a standard interface (e.g. OPC-DA). Third-party systems that do not support proprietary interfaces can nevertheless receive messages and states from the desired subsystems and can transmit commands to them via a standard interface.

The gateway function can be used in conjunction with all the functions mentioned above.

11.30 Status bars

Each UMS client can be configured with its own status bar. Several menus can be configured on each status bar. A menu can consist of system menus (e.g. system state toggling) or important data point commands (e.g. triggering remote alerting). The state of the menu can be represented by icons.

11.31 Graphics

Graphics are an important element for displaying messages and states as well as for triggering operation functions. Each UMS graphic can be individually configured. For this purpose the following elements are available:

- Levels or layers
- Background graphic (e.g. floor plan)
- Navigation options (for navigating between graphics)
- Interactive elements (zones) for display and operation

11.31.1 Levels

The levels are used for improving the overview of the graphic and for displaying or hiding information if required. Thus, for example, it is possible to represent all data points of the fire alarm system on one level while the data points of the intrusion alarm system are on another level.

11.31.2 Navigation options

The navigation options via graphics are many and can be configured project specifically. A number of zone functions and graphical options are available for navigation.

11.31.3 Zones

Diverse information can be visually displayed with zones. They also enable navigation and operation. The functionality and possibilities of zones are being continually expanded.



11.32 Icon libraries

By default icon libraries for representing data points on the graphics are supplied with the UMS. The following icon standards are supported:

General information about icons

A variety of icons in different colours are available.



Icons for special applications

Icons adapted to functionality are created for special applications (e.g. special fire systems).



Icons compliant with VdS standard

A variety of icons in different colours are available.



Icons compliant with VKF standard

A variety of icons in different colours are available.



State icons for each icon are also displayed to represent data point states.



Libraries are being continually expanded and new ones added.

12 Print

UMS offers a variety of printer types and printing options. Printers which support SNMP messages are monitored by the UMS (e.g. fault, out of paper, etc.). This guarantees excellent reliability even when printing.

12.1 Intervention printer

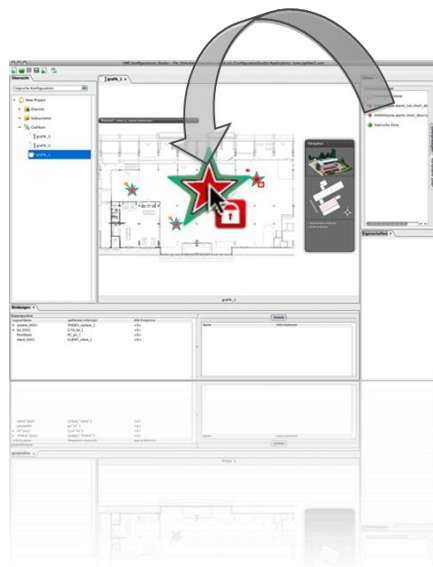
The intervention printer is used for all manually run print commands from the UMS interface. The data is printed in a suitable form (e.g. list form).

12.2 AutoPrinter

The AutoPrinter automatically prints alarm data. The AutoPrinter may be remotely located, for example at the plant fire brigade for rapid information in the event of an alarm. Message data (message type, message location, data point, date, time), graphical information (e.g. layout plan), and PDF files can be printed. What should be printed can be freely programmed for each message based on the system state. Several templates with which the following parameters can be defined are also configurable:

- Portrait or landscape
- Print size (e.g. A4 or A3)
- Headers and footers

13 Configuration



The UMS ConfigurationStudio lets you configure all project-specific data in the UMS. This includes all text data (e.g. message texts, measures, keywords) and all graphical data (e.g. images, zones). The UMS ConfigurationStudio offers many functions which facilitate entering customer data:

- Guided entry: indicators inform the user when data has not yet been entered or was entered incorrectly.
- Window technology: the appearance of UMS Studio can be freely configured. The user can position important windows as desired and the Editor itself can be distributed across multiple monitors.
- Drag & drop: the most important functions can be performed per drag & drop.
- Data import: the most common data can be imported in simple tabular form.
- Data export: important configurations can be exported, processed with Excel, and re-imported.
- Default definitions: useful basic definitions are already provided by Securiton to minimise the work of modifying data.
- Automatic data import: the UMS is ready to import data automatically from subsystem interfaces. When the UMS and the subsystem are connected the first time, the data points are polled via the interface and automatically created in the UMS, provided the subsystem supports this functionality.
- Mass configuration using configuration templates
- Department mechanism which permits a parent-child relationship between pre-defined data point types and the real data points.

13.1 User interface language

The user interface language (menus) of the UMS ConfigurationStudio can be toggled between German and English while running.

13.2 Project language

The UMS permits the parallel use of multiple languages in the same project. Where needed, language-dependent texts can be created in all selected languages.

13.3 Create new projects

Multiple parallel projects can be created and configured with one UMS Configuration Studio.

13.4 Open projects

Thanks to the unique UMS technology, different projects and project states of a project can be processed one after the other in parallel.

13.5 Save projects

Currently changed projects can be saved with the “Save project” function. It is also possible to have multiple project states, for example, to edit new configuration variants in advance and then at a later time to make them available online.

13.6 Update projects

Projects that were created with the previous UMS version can be updated to the latest UMS version with the “Update project” function.

13.7 Statistics

Statistics displays the statistical data related to the currently open project. In so doing, the number of data points, users, graphics etc. are represented.

13.8 Logical configuration

All aspects of the data point configurations are set in the logical configuration. Reactions (macros) are assigned to specific messages based on different states (e.g. night). User management with users, user groups and their rights are also defined here.

13.9 Physical configuration

All physical aspects of the project are configured in the physical configuration. This includes defining how many PCs are assigned to which UMS servers, clients and assigned printers. Likewise, which subsystems are connected to the UMS system via which PCs is also defined. The configuration can be easily changed with drag and drop.

13.10 Administration

The option of being able to manually stop or restart individual services is offered under Administration.

13.11 Simulation

The “Simulation” functionality allows you to trigger messages from data points. These messages are marked in the message list as simulated. For security reasons no states are effected by the simulation. The simulation is subject to user rights.

13.12 Configuration templates

Configuration templates make it possible to perform mass configurations efficiently and with a minimum of effort. A data point can be configured as desired (macro assignment, keywords etc.) and then assigned to a configuration template as default configuration. In the selection window you can then assign the configuration template to all other desired data points. This assignment applies the configuration saved in the configuration template automatically to all selected data points.

13.13 Project history

With the project history function every data changed can be tracked back. The data that was changed, when it was changed, and by whom it was changed are noted.

13.14 Project versions

The well-designed UMS configuration concept makes it possible to store various project times in separate, loadable project files. It is then easy to prepare project configurations and to activate them at a defined time.

13.15 Project documentation

The most common project configuration data can be documented by exporting data to an Excel file. Thanks to the Excel format, the data can then be formatted as wished by the customer.

14 Interfaces

Information about the currently available interfaces for specific subsystems and communication systems (brands, products and variants) can be requested from Securiton.

Only the basic functions for each type of system are described below. For the full message, command and functional scope of a specific system please refer to the relevant UMS interface description.

14.1 Fire alarm systems (FAS)

Fire alarm systems and their interfaces to the UMS are monitored by cyclic alert signals. A time synchronisation of the subsystem clocks can be performed by the UMS at pre-defined times. Internal and external alarm media can be switched on/off and acknowledged.

All alarms and fault messages can be listed in the UMS alarm overview and viewed by priority. You can acknowledge and reset alarm messages from the UMS. When alarms are received, automatic responses (macros) can be triggered.

The states of a subsystem are tracked in a UMS process image. In this way all current states can always be represented on the UMS. Because there are configurable target values for every data point state in the UMS, all abnormal states can be called up at any time.

Nearly all control functions possible on the control panel can also be performed from the UMS. This is of course subject to the functional limitations of the subsystem and the stipulated regulations (e.g. if no group may be switched on as long as an alarm is pending on it, or if remote resetting is not permitted).

Typical control functions include the following:

- Toggling control panel present/absent
- Switching areas and groups on/off
- Deactivating (connecting) individual detectors
- Switching off sound
- Starting inspect time
- Setting digital outputs
- etc.

14.2 Intrusion alarm systems (IAS)

Intrusion alarm systems and their interfaces to the UMS are monitored by cyclic life checks. A time synchronisation of the subsystem clocks can be performed by the UMS at pre-defined times. Internal and external alarm media can be switched on/off and acknowledged. When the subsystem or UMS is started up, all states of the subsystem are polled (tracked) in order to synchronise the process image in the UMS.

All alarms and fault messages can be listed in the UMS alarm overview and viewed by priority. You can acknowledge and reset alarm messages from the UMS. When alarms are received, automatic responses (macros) can be triggered.

The states of a subsystem are continuously tracked in a UMS process image. In this way all current states can always be represented on the UMS. Because there are configurable target values for every data point state in the UMS, all abnormal states can be called up at any time.

Nearly all control functions possible on the control panel can also be performed from the UMS. This is of course subject to the functional limitations of the subsystem and the stipulated regulations (e.g. if no group may be activated on as long as an alarm is pending on it).

Typical control functions include the following:

- Toggling control panel present/absent
- Switching areas or groups to armed or disarmed
- Deactivating (connecting) individual detectors
- Switching off sound
- Setting digital outputs
- etc.

14.3 CCTV video surveillance systems

Not all video systems and their interfaces to the UMS can be monitored by cyclic alert signals, since some video subsystems do not have this functionality. A time synchronisation of the subsystem clocks can be performed by the UMS at pre-defined times. All alarms and fault messages appear in the UMS message list and are sorted by priority. You can acknowledge and reset alarm messages from the UMS if the subsystem permits. When alarms are received, automatic responses (macros) can be triggered. The fault messages are particularly important in video systems, for example if a video signal is lacking on a video input. Nearly all control functions which are possible on the video control panel can also be performed from the UMS.

Typical control functions include the following:

- Switching selected cameras to any monitor
- Panning, tilting and zooming cameras
- Setting cameras to pre-programmed positions
- Starting a recording in the picture storage or video recorder
- etc.

14.4 Access control systems (ZKS)

Via this interface all security-relevant access control system functions can be easily operated remotely and evaluated from the UMS in a standardised manner. This includes the evaluation of all fault and alarm messages, opening or locking doors with the access control system or changing the reader states, blocking access control badges, polling the whereabouts of persons, etc. A typical application is to open doors remotely with picture comparison from the UMS; this is useful when customers or employees have forgotten their badges or, for a higher level of security, when people want access outside normal working hours (four eyes principle).

The interface is not suitable for making changes to personal data or configuring the access control system from the UMS.

Typical control functions include the following:

- Controlling doors (passing through access, continuous opening, etc.)
- Controlling readers (blocking, enabling, etc.)
- Blocking badges
- etc.

14.5 Programmable logic controllers (PLC)

Programmable logic controllers are primarily used in the technical area for alarms and fault messages, door and interlock control systems, and in prisons for break-in and break-out security. They can be connected to the UMS using various interfaces. Typical interfaces are: SHP-TON protocol, Profibus, OPC, etc.

PLC inputs can be defined as alarm or fault messages and then prioritised and processed on the UMS as alarms on the subsystems. These signal inputs can be switched INACTIVE and ACTIVE on the UMS, depending on the message type.

Various remote control functions can be performed from the UMS via the PLC outputs.

Typical control functions include the following:

- Door and emergency exit controls
- Lighting controls
- Roller blinds controls
- etc.

14.6 Communication systems (SMS, pager, e-mail)

Messages can be sent to external recipients via these interfaces. The messages can be manually triggered or sent by means of responses to events. Multiple communication paths are possible at the same time:

- SMS
- Pager
- E-mail

14.7 Virtual alarms

A special functional module makes it possible to create messages and alarms without a direct subsystem connection from the UMS. The UMS user can use this functionality, for example, to create messages manually (e.g. telephone alarms, key issuance etc.). For such messages and alarms all functions available in the UMS (e.g. intervention texts, reactions, graphics) can be used.

14.8 Database systems

This interface enables communication amongst UMS systems and external data base systems. Commands as SQL queries can be transmitted, and messages in the form of data as response to the SQL queries can be received. The received data can be visualised in the UMS graphic display as text.

14.9 Standardised interfaces

All common standard interfaces are available in the UMS, including OPC, BACnet, EIB/KNX, Modbus and SNMP.