GEUTEBRÜCK

G-SIM Security Information Management System

Major Release: G-SIM X Panopticon

G-SIM X PANOPTICON

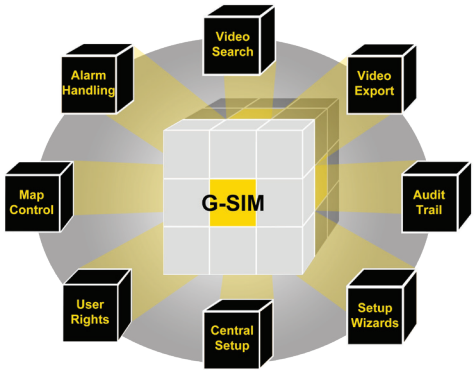
Security Information Management System G-SIM

What is G-SIM?

The software-based security information management system G-SIM manages, controls and operates all components of your entire Geutebrück video security or process monitoring system in the global network.

The core functions are:

- central, easy-to-manage user management with practical, well thought-out rights structures
- intuitive operation via freely configurable site plans with superimposed camera and object symbols
- extremely effective and flexible alarm and event management
- central logging of all relevant operating and system processes
- complete scalability, which is equally suitable for small individual systems as well as for very large geographically widely distributed video systems with redundancy servers and failover



G-SIM automatically qualifies and sorts all incoming information from NVR (Network Video Recorder) systems in the network and prepares it according to user-specific requirements.

The information (e.g. alarms) is displayed, linked to interactive graphical maps. In addition, predefined instructions for action as well as event lists and, of course, the corresponding video images are displayed in real time on up to 30 operator stations, each with up to four monitors or a monitor wall, and displayed according to adjustable user requirements.

In addition, other systems such as intrusion alarm systems, fire alarm systems, access control systems, building management systems, intercom systems or logistics systems (merchandise management systems, scanners, etc.) and many more can be visualized and controlled via **data interfaces**.

The **software ergonomics** (user-friendliness) is consistently designed for intuitive, self-explanatory and uniform handling of all operating elements. This makes it possible to manage and operate even very large video security systems with several thousand cameras very easily.

The basic **software architecture** consists of a server as the core of the software, a health agent for monitoring all system functions, an SQL database for archiving all system events and parameters, operator consoles for operation and management consoles for parameterization by administrators.

G-SIM mediates and controls the information and video transmission between the recorders, the operating computers in the network (client-server principle) and any third-party systems that may be connected. Image processing, storage and transmission are handled exclusively by the recorders.

As a result, the load on the network does not exceed the usual equipment level for video live streaming environments. The 64-bit architecture in combination with the integrated GPU acceleration (Graphics Processing Unit) additionally ensures extremely fast image processing when displaying live or stored images.

More details:

The system's **central user management** is subject to a highly flexible, role-based security model. All actions, action groups and hardware categories of the system components (camera groups, recorders, etc.) can be assigned to specific operators and operator groups by parameterizing individual authorizations, authorization levels and restrictions. In this way, personnel work with system components that are precisely tailored to their area of responsibility.

In the **personalized user interfaces** (man-machine interface), all screen windows can be freely positioned across all monitors simply by dragging and dropping. Individual control elements, status-dependent graphic elements and dynamic site plans can be individually configured by each user and saved under their account.
Once saved, each user receives and keeps his individual, familiar working environment.

Efficient **alarm management** ensures intelligent processing of alarms. The worst case in a video security system is the triggering of several alarms at the same time. G-SIM automatically coordinates alarm clusters and assigns previously parameterized additional information, site plan graphics and, of course, the corresponding camera activations to each alarm. These „information packages" are initially displayed at each authorized operator station. If an operator accepts one of these alarms for processing, it disappears from the list of pending alarms at the colleagues.

An alarm is then processed in a previously parameterized workflow. Other alarm functions, such as prioritizing, sorting, forwarding or deferring are of course also possible.

The **operation** of video surveillance is primarily used to control the observation of movements in certain areas. This also includes, for example, the observation of the sequence of a goods delivery. In large systems, it can quickly become a real challenge to select all relevant cameras for „step-by-step tracking" and to arrange them clearly in viewers.

By selecting individual cameras by simply dragging a camera icon from a site plan into the viewers, it is possible to group cameras into scenes and link the scenes. One mouse click and the scene switches and the next section can be seen with several cameras, both live or later in the recording.

The **logging (audit trail)** of all system and operating processes takes place automatically in compliance with data protection and other legal regulations. Basically, all user actions are logged and can be replayed later like a video if required.

This means that the exact sequence of images that the acting operator was able to see is then displayed. Users can only view their own audit log and filter it by specific event types within specific time periods. Supervisors with appropriate authorization have access to all audit logs.

G-SIM monitors itself. The **health agent** is a software component that uses modular, specialized health monitor plug-ins to monitor the functionality of all components of the entire system based on various parameters.
Malfunctions of the hardware, the software, critical states in the system load or changes in the network parameters are detected immediately and can be reported to selected users like an alarm.

G-SIM supports different **failover concepts** for itself as well as for the NVRs integrated in the system. The uninterrupted availability of the systems can be ensured, for example, with a multicast failover solution (mirrored infrastructure, double the number of recorders) or with the „NVR+1" failover solution (control of a stand-by device).

An important function of G-SIM is the subsequent **event analysis**. Across recorders, all events (alarms, failure messages, interface messages, etc.) can be reconstructed in detail retrospectively. Helpful search tools are available for this purpose, filtering by process data (metadata), events, date or time. Additional export functions enable the forwarding of selected events for further analysis as well as external archiving of the video data via an integrated archive management for preservation of evidence.

Major Release G-SIM X Panopticon

The G-SIM management software is the ideal complement for managing and operating your G-Core systems. Maintain an overview of complex units, whether on-site or in globally distributed G-SIM installations.

All information from your Geutebrück system and all thirdparty systems connected via interfaces are bundled, making it easier for you to manage your data.
Thanks to the optionally bookable global data synchronization of each individual system, mutual and comprehensive access to resources such as cameras, alarms, process data and, for admins, setup data is possible.the event of a G-Core system failure, G-SIM controls the activation of a failover server to minimize downtime.

Georeferenced maps now integrated in the system create an optimal overview. By dragging the camera image onto the map, the camera position is displayed directly, enabling orientation even within very large installations with many geographically distant locations.

In addition, the web browser integration option enables protected, bookmark-controlled integration of the web user interfaces of third-party security or facility management systems in G-SIM Viewers. Of course, Internet pages such as weather channels, news services or web video streams and much more can also be displayed and operated in this way in the uniform interface of G-SIM.

The intelligent alarm handling with automated alarm workflows and instructions for action optimally supports the user in the processing of alarms. A separately adjustable user rights management enables clearly definable rights for the respective personnel groups and thus individualizes the user interface to the required and desired requirements. Thanks to the clear display and simple operability, terrain monitoring is thus possible with little personnel effort.

By combining image and process data, G-SIM can also be used for process monitoring. Save time and find errors within your processes faster. Whether G-SIM is used for video monitoring or process visualization - your data is always safe. In the event of a G-Core system failure, G-SIM controls the activation of a failover server to minimize downtime.

Access to sensitive data is restricted by releasing images in a four-eyes principle to always protect your data in the best possible way.

Your security standards can be maintained by also using your own certificates for SSL encryption in the integrated certificate management.

Please contact us.
We would be happy to help you organise and configure your system.

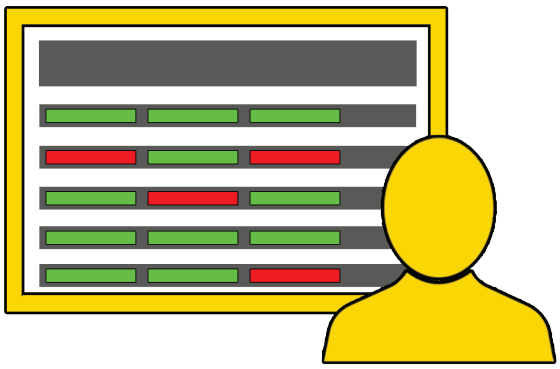
G-SIM X Panopticon Feature Set

Features G-SIM	
Camera	Yes
Recorder	Yes
Operator Stations	Yes
Remote Consoles	Yes
Logical Sites	Yes
Simple Alarm Management	Yes
Site Maps	Yes
4 Eyes Principle	Yes
Certificate Management	Yes
Advanced Alarm Management	Yes
Messaging/Tasks	Yes
Linked Layouts	Yes
Audit	Yes
Alarm Report Manager	Yes
SNMP Plugin	Yes
Windows Authentication	Yes
GIS Map	Yes
Multi Administrator Access	Yes
Web Browser Integration	Optional
VMS Failover (G-Core)	Optional
Server Failover	Optional
G-SIM Global	Optional
Active Directory	Optional
MultiTenancy	Optional
CamCheckService	Optional
Video Track an Trace (VTT)	Optional

Function Overview

Function	Description
Scalability	G-SIM allows access to camera, recorder, user, remote console and site connectivity.
Administration	Management Console for the administration of all resources, functions, users and their authorizations in real time, intelligent configuration assistance through immediate plausibility check during input. Cost-saving system configuration due to Multi Administrator Access and simultaneous connections to several G-SIM servers. All changes made are logged.
User Interface	Operator Console, configured with the appropriate permissions for the respective user or location. Remote Console for remotely controllable output consoles such as monitor walls.
Site maps	The site maps provide an overview of all cameras — on site plans or georeferenced maps. The alarm recording camera is immediately visible in the site map and the appropriate video image is displayed by dragging it into the viewer. It also works the other way round: By dragging the video image into the site map, the position on the site is immediately visible.
Process data search	The process data search makes it possible to find the desired data in the twinkling of an eye. Frequently used search fields can be fixed so that, for example, license plates or barcodes can be searched for without unnecessary clicks.
Alarm Management	Each incoming alarm can be checked quickly and easily. Users can accept, edit or delegate and lock the alarm. This allows a quick response.
Alarm presentation	G-SIM supports two different ways to present Alarms. The classic Tab View and a „Viewergroup“ mode.
Messaging / Tasks	Orders can be sent to users. These users can then accept or reject the order. The system notifies the orderer.
Linked Layouts	Viewer templates with different displayed camera channels can be created. Simply by mouse click can be switched between these viewer templates.
Video Track and Trace	Packages lost on conveyor belts can be found quickly, even on conveyor belt routes that have multiple branches. The simultaneous image display of the respective position of the parcel on the conveyor belt allows parcels to be found quickly.
Web Browser Integration	Embedded web browser windows are displayed in the Operator Console. Websites of external systems that can be added via bookmarks enable a quick expansion of functions. This includes authorisation control through the G-SIM user administration and auditing.
Two Man Rule	The protection of personal rights already begins with the login. Access to personal image material is only possible with the joint login of two defined users. For this purpose, the administrator can define separate rights for the joint login in advance.
Active Directory	Synchronisation with the Windows Active Directory. The connection between the user groups from Windows with the user groups from G-SIM facilitate the administration of users, groups and rights in G-SIM and enable a Single Sign On with Windows users.
Audit	The use of the system as well as changes in settings are logged in a central database and can be called up in the user interface.
G-SIM Global	With the software option G-SIM/Global, several, independent G-SIM installations at geographically distributed locations are connected to form a global safety network. If required, any other system can be accessed from any local system, e.g. to set up substitution scenarios or to search for process data.
IT Security	All communication between G-SIM servers and clients is protected by SSL encryption; own certificates can also be used. G-SIM thus adapts to a company‘s or client‘s own security standards.
Multi-tenancy	Multi-tenancy allows multiple independent users to be set up on one G-SIM system with individual access to G-SIM resources.
Server Failover	In case a G-SIM server fails, its functionality — e.g. rights, connections and functions - is taken over by a second server - the failover server - and minimizes downtime.
VMS Failover	If a G-Core server fails, its camera channels are taken over by a G-Core failover server and displayed transparently in G-SIM.

New Management Console



Our completely new Management Console (ManCon)

The configuration of an entire system with many cameras, events, messages, connections, etc. can be quite time-consuming under certain circumstances.

The new ManCon focuses on your user experience and has been completely restructured with state-of-the-art technology incl. plausibility check.

The result:

Cost-saving, easier and more efficient work simultaneously with multiple users, even on large systems, thanks to simplified user interfaces and active detection of configuration errors.

- **Multiple server connections can now be kept active at the same time.**
  Thus, you can easily switch between active connections, for example your test sys-tem and your production system, using a drop-down field.

- **Several administrators can work on the setup of a server at the same time.**
  This considerably speeds up the configuration of extensive projects, with the indi-vidual admins seeing who is currently editing which object.

- **Setup entries can now be undone.**
  Any change in the setup can be undone using the built-in Undo/Redo framework until the setup is saved.

- **Automatic control of mandatory field entries.**
  When creating new objects (e.g. users or NVRs), the ManCon checks whether all mandatory fields have been configured without gaps. If a value is missing, this is marked. The check also takes place during an update or import of a setup and then guides the administrator to misconfigurations in order to be able to correct them.

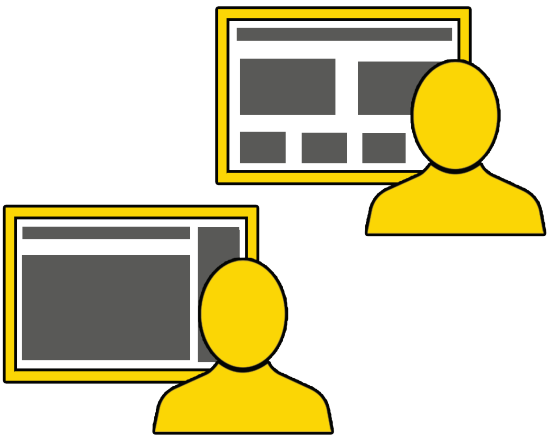
- **New drag & drop and clone operations as well as shortcuts for the most important operations.**
  Many operating functions have been standardized and offer additional time savings during configuration.

- **Revised, streamlined menu structures for a better user experience.**
  By streamlining the menu structures, you get significantly more space in the user in-terface for your configuration. In addition, the increased performance ensures faster loading of setups and a pleasantly fluid operation.

- **Revised, simple configuration of alarm processing.**
  We have also consequently simplified alarm processing. For example, the G-SIM Agent, which is responsible for Active Directory integration, processing viewer ac-tions, writing away alarm statistics or NVR failover, among other things, has been moved to the general server setup.

- **New automatic notification area.**
  Logged in administrators are automatically informed about changes, warnings and errors during their work with ManCon.

Improved Operator Console



Your customizable desktop in the new Operator Console (OpCon)

We have also taken care of the further development of the Operator Console in this release.

The customizable operator template now allows every user to adapt his working environment according to his personal needs for his workflows in order to be able to work safely, quickly and efficiently with his G-SIM system.

Improved display of G-Tect alarms in the operator console

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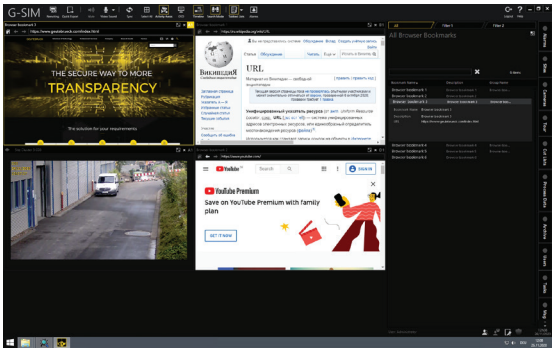
WebBrowser Integration



The new software option G-SIM/Webbrowser Integration

Wouldn‘t it be extremely practical to be able to display and operate additional, external information sources in your G-SIM user interface?

The new software option G-SIM/Webbrowser Integration opens up endless possibilities to display and operate web-based content directly in the G-SIM operator console.

In this way, you can easily integrate web-based control interfaces of third-party systems such as your access control system, building management or intrusion alarm systems or of your industrial facilities. Or you enable your security staff to access Internet sites such as weather channels, news services or web video streams.

The relevant web pages that can be called up are predefined as bookmarks in the setup and made accessible to specific users or user groups.

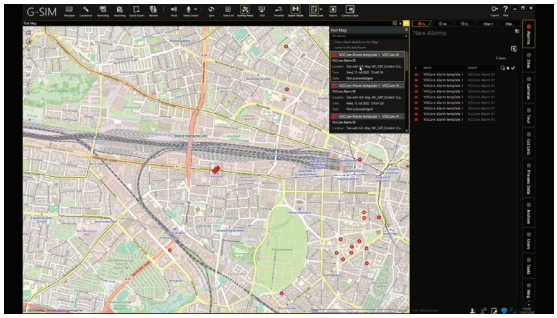
The functions at a glance:

- Convenient access to the bookmarks via the „Browser“ control tab.
- All bookmarks are provided with name, description and a group name.
- Sorting and filtering to quickly find a bookmark.
- A bookmark-linked web page is simply dragged and dropped onto an enabled viewer in the Operator or Remote Console and called up.
- Individual settings for each bookmark define the appearance of the browser win-dow and other navigation options on the displayed web page.
- Security and audit functions (user audit) for the browser function are defined global-ly in the system settings.
- Browser sandbox - navigation options are restricted so that a user can see only rele-vant pages and the call of unwanted pages is excluded.

Benefits for you:

- **Quick function extension of the video management system with other management systems.**
  Most systems offer configurable views or control interfaces on a web basis. These can be integrated into G-SIM without major configuration effort, e.g. to provide functions that cannot be controlled via G-SIM.
- **Common display of information in a unified interface.**
  Parallel running applications do not need overlapping windows, but are displayed embedded in G-SIM, this is also possible on the monitor wall.
- **Control of software access is integrated in G-SIM user management.**
  Access rights to the web browser pages are included in the central user management and do not need to be configured separately.
- **Browser Sandbox.**
  The navigation options are restricted so that users only see relevant webpages.
- **User audit** ensures full transparency even for browser functions.

GIS Map



Use geo-referenced maps, integrated in the G-SIM

Another highlight in this release is the newly integrated function of being able to use georeferenced maps for displaying the respective positions of cameras and other objects.

Detailed map material from Open Street Maps and Google Street Maps is supported.
You simply store the respective, static geo-coordinates of your cameras and all other objects in the setup and GIS Map automatically shows the exact position on the map with superimposed, clear symbols. The orientation of the cameras or the map objects can be set manually as usual.

In addition, you can define an area of the map material for your users to move around in, or even enable the entire map material for use.

Especially for video systems with many, geographically distributed locations, such as industrial and commercial branches, bank branches, railroad lines and stations or city surveillance, GIS Map ensures user-friendly, fast and accurate orientation.

The defined, geo-referenced maps with the superimposed symbols can be used in G-SIM in the same way as the familiar site plan overlays for operation and in the event of alarms. In addition, the relevant alarm information can be displayed on the map in a pop-up window if desired.
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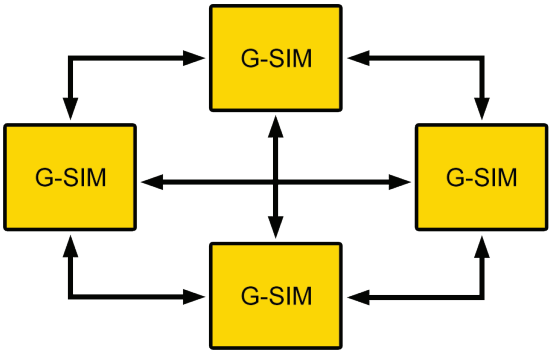
Benefits for you:

- Geographically exact display of static camera and object positions for perfect orien-tation of your security personnel.
- Time-saving, automatic configuration of object positions in the maps.
- Automatic grouping (clustering) of closely spaced object symbols on a map area for clearer display of many objects on one map.
- Compliance with legal requirements in certain countries.

G-SIM Global



Create your own global video security system - with G-SIM/Global

Monitoring your branches, sites and subsidiaries from a central control center saves you considerable costs for personnel and the establishment and operation of local guard rooms.
Thus, a few of your highly trained employees centrally monitor security and can act much more effectively in the event of an incident.
With the G-SIM/Global software option, you connect multiple, independent G-SIM installations at geographically distributed locations to form your global security network.

G-SIM/Global is the suitable solution for all industries that have to secure many locations as effectively as possible. This includes transport companies of all kinds, industry, institutes and retail chains with many branches, energy suppliers and their networks, critical infrastructure companies, but also logistics companies that operate their process monitoring of the supply chains centrally and decentrally.

In this release, the G-SIM and G-SIM/Global product lines have been merged, making planning, configuration and operation much easier.

Benefits for you:

- You have access to all functions of up to 30 local G-SIM systems via your global net-work, such as live streaming, database recordings, maps, cameras, tours and alarms.
- If required, any system can be accessed from any other system that is connected to your G-SIM/Global network, e.g. to organize substitute scenarios..
- You export video data from any G-SIM installation, for centralized analysis and as evidence.
- You manage alarms from all connected servers. You can configure whether an alarm should be sent to the global network or not.
- Search for process data can be applied to all connected servers.
- Last but not least - benefit from the synchronization of setup data from all local sys-tems to gain network-wide access to the configuration of all resources and user permissions and restrictions.

Security Improvements

Manage certificates for SSL encryption yourself

We offer you the option of using your own certificates and thus adapting G-SIM to the security standards of your company or your customer.
Of course, you can continue to work with the provided certificates as usual.

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