Applications in banks
Economically efficient, customer friendly and ready for the future – with GAMMA building control

Answers for infrastructure.
Successful management of branch banks

Today’s financial service providers place extremely high demands on their office buildings. A branch bank should be secure while also conveying the right professional image. The main lobby should be customer friendly, and the offices should be suited for flexible use. The building’s interior areas should also furnish an optimal environment for efficient workflows, thus enabling cost-effective banking operations.

The key to achieving this? GAMMA *instabus*, a building management system based on the international KNX standard that intelligently combines various functions of branch banks.
Efficient building management for banks

- **Economic management of branch banks**
  With GAMMA instabus, you enjoy all of the advantages offered by state-of-the-art building technology: energy-efficient and cost-effective facility management; the preventative safeguarding of people and property; as well as sophisticated yet easy-to-use building-system controls. GAMMA instabus is the right choice for efficiency, safety and comfort. A wide range of activities take place within a bank. An intelligent building management system specifically caters to each of these activities.

- **Ensuring efficiency over the long term**
  GAMMA instabus provides for the intelligent integration of all electrical functions within a building – whether for new bank office construction, or the expansion or renovation of an existing building – thus facilitating energy-efficient and cost-effective operations. The system provides for the optimal need-based management of lighting, heating, cooling and ventilation systems – 24 hours a day. This reduces operating as well as personnel costs.

- **In case of danger**
  Safety is a topic of key importance at a bank – for the protection of customers, personnel and property, as well as to avoid damages and minimize incidental costs. Emergency and escape-route lighting as well as fire and intrusion alarm systems are centrally controlled by GAMMA instabus.

This ensures the comprehensive monitoring of key hazards, as well as a rapid, focused and correct response in the event of emergency.

- **Improving the workflow**
  The economic efficiency of GAMMA instabus becomes clear when we look at what happens when usage conditions change, the system is outfitted with new functions or when the rooms and areas within a bank are used for alternate purposes. The system can be quickly and easily adapted to the usage requirements that prevail in each area of a branch bank. GAMMA instabus was developed from step one with an eye to intuitive and user-friendly controls. The system is easy to use, despite its many functions and flexibility. It is operated via touch panels, remote control, operating displays and switches, as well as from a central visualization PC.

- **Installation solutions from a single source**
  As an all-round provider in all matters to do with any office installations, we offer anything from energy feeds down to the outlets in the individual office rooms – we’re here to provide a comprehensive solution, tailored to the requirements of your office building. GAMMA instabus ensures maximum security and comfort for banks in a cost-effective manner.

**Highlights**

- Reliable operation – all day, every day
- Greater energy savings and lower operating costs
- An optimal work environment
- Enhanced workflows
- Preventative safety
- Accommodates the changing use of interior space
- Protects lives and minimizes damage in the event of emergency
Where economic efficiency is at home

GAMMA instabus lowers energy and operating costs while also increasing customer and employee comfort.

■ Centralized visualization
With its central visualization, GAMMA instabus permits an up-to-date picture of the whole building and the operation of all building functions. This promotes the efficient management of the building.

■ Building management of remote real estate properties
The connection to existing data networks (LAN and Internet) or a building control system allows the building management to spread across several buildings, whether within a branch bank, within a city, or across international borders. Remote real estate properties can optimally be administrated with ease thanks to real-time status information.

■ Centralized monitoring
The central monitoring of several branch banks reduces staff overhead – without GAMMA instabus causing additional installation costs.

■ Damage prevention by early fault signals
Error messages regarding energy distribution, from heating, cooling or ventilation installations are immediately picked up and passed on – for example, to the cell phone of a technical manager. Speedy elimination of the fault prevents costlier measures becoming necessary down the line.

■ Maintenance according to need
Maintenance and repair prioritized according to need are made possible by the counting of operating hours and switching cycles, as well as failure reports, e.g. from DALI-ECGs.

■ Tracking of device power consumption
Energy readings and consumption data are gathered and fed to the central visualization for display and further processing. This is particularly important for different leasing areas.

■ Using daylight without glare
Light and shade are controlled in such a way that optimum use can be made of existing daylight while preventing glare. Having the light switched on and the blinds closed is a situation that we avoid as much as possible. Electricity is saved, and the air-conditioning system doesn’t need to struggle against sunlight and the heat created by artificial lighting. To make this happen, the blinds automatically adjust according to the position of the sun.

■ Switching-off of unneeded energy consumers
To reduce energy costs, energy consumption data can be gathered for analysis, peak loads capped and unneeded electric consumers switched off.
A constant light regulator that incorporates daylight only supplements as much artificial light as is necessary – less light closer to the window, more light closer to the wall.

- **Blinds with daylight steering**
  Highly modern blinds with daylight steering can be integrated into these controls.

- **Constant light regulation**
  A constant light regulation only permits the amount of artificial light actually needed in the room. Of course you can always manually adjust the light to suit your needs.

- **Lighting according to presence**
  If an office or conference room is not in use, the light is switched off altogether. The lighting can be controlled by presence sensors, by being connected to an entrance control or a timer, or manually. Outside of core usage times, hallways and bathrooms in particular are only illuminated when in use. Within the core usage times, a variable minimum brightness is maintained when nobody is present. Thus optimum energy savings can be attained, while increasing light bulb longevity.

- **Heating, cooling, and ventilation according to need**
  Heating and cooling costs are a major factor in a building's operating costs. GAMMA instabus reduces these costs significantly, by only fully heating, cooling or ventilating offices and conference rooms when they are actually needed. The room temperature can be controlled by motion sensors, core usage times, by room-based utilization plans or manually.

- **Reduction of heating in case of open window**
  As long as windows are open, the heating is automatically lowered to frost protection level, and cooling and ventilation reduced or deactivated altogether.

- **“Central off” of heating, cooling, and ventilation**
  At night, a “central off” setting can reduce heating, cooling and ventilation to protection mode.

- **Usage changes without rewiring**
  The economic efficiency of GAMMA instabus becomes clear when we look at what happens when usage conditions change. When room sizes are altered, organizational changes made, or new equipment installed, a costly rewiring won’t be necessary. Changing the parameters is all that’s required in most cases, and functions and connections are simply reassigned. Expensive vacancy times caused by complex modifications are thus reduced significantly.

**Highlights**

- More efficiency in building management
- Cost-effective use of light and shade
- Room temperature based on use
- Flexible adaptation to changed room usage

- **New functionality easily added**
  Should an expansion of functions become necessary down the line, this is possible without a hitch thanks to the decentralized concept of GAMMA instabus. An additional push-button control, for example, only requires a bus lead for it to be able to operate any room function you require.
Emergency and escape route lighting are exceptionally easy to implement with GAMMA instabus. Reliable lighting management, particularly for sensitive areas such as vaults.

Security comes first

GAMMA instabus – 24/7 protection of people and property, to avoid damages and minimize incidental costs.

- **Presence-dependent corridor lighting**
  Accidents due to inadequate lighting can easily be avoided. If corridor lighting is switched on when a person is in the corridor, then the right lighting is always there when it is needed.

- **Exterior and walkway lighting**
  Lighting of exteriors and walkways can be made dependent on brightness, movement or time, and so is always activated on time.

- **Switching-off of devices centrally during absence**
  To avoid damages caused by unsupervised electrical devices, these are switched off centrally at night.

- **Indication of windows, roof hatches, or doors left open**
  Windows, roof hatches, or doors left open overnight or weekends do more than just invite unwanted guests – in case of storm, rain or frost, they can also cause significant damage. The indication of “open window” or “open door” makes sure that you can close these in time.

- **Emergency and escape-route lighting**
  In case of danger, everyone in the building is safely guided outside with the emergency and escape-route lighting based on GAMMA instabus and installed according to EN 1838.

- **Automatic reaction in case of fire alarm**
  If the fire alarm system is connected to GAMMA instabus, individual electric consumers can be switched off before they become an additional hazard. The complete lighting system can be turned on, thus reducing danger of panic.
The temperature in server rooms can be monitored from the central visualization. Malfunctions are reported immediately.

- **Reaction in case of break-in**
  When the building’s burglar alarm system detects an attempted break-in, GAMMA *instabus* automatically switches on the lights and opens the blinds.

- **External building monitoring**
  Sections of a building not used at night can be monitored remotely from other parts of the building with GAMMA *instabus*.

**Highlights**

- Better to prevent damages than repair them
- Emergency and escape-route lighting
- Visualization shows where dangers are located

Presence-based lighting is often used in safety-deposit rooms.
Thoughtful solutions throughout

An intelligent building management system should specifically cater to each of the many activities within a bank. GAMMA instabus offers the necessary multitude of functions.

- **Façades, exterior areas**
  - **Lighting effects**
    For lights or groups of lights, timed sequences of brightness values can be defined and repeated often and in cycles. From running light to brightness and colour sequences, there are virtually no limits to the lighting designs you can create.
  - **Controlling of coloured lights**
    Controlling coloured lights, especially in concert with DALI control gear, offer countless possibilities to present your façade in style even in the dark.
  - **Advertising banners**
    GAMMA instabus provides for the illumination of advertising flags and banners at pre-set times.
  - **Exterior blinds**
    The opening and shutting of exterior blinds can be synchronized so that the building has a unified external appearance.

- **Fountains**
  In order to protect equipment such as pumps, fountains are operated automatically according to the time of day and outdoor temperature.

- **Private offices**
  - **Mini-visualization**
    Thanks to the mini-visualization of building systems at each desktop PC, only one central switch per office is required. Lighting and blinds can be operated directly from the desktop.

- **Conference and meeting rooms**
  - **Room and media functions**
    Conference rooms have a prestigious function and are furnished with extensive technical equipment. With GAMMA instabus, room and media functions are easy to control and operate.

- **Scenario control at the touch of a button**
  With the touch of a button, the entire conference hall can be switched to the current mode of use (scene control).

For example, while giving a presentation, you could lower the blinds, roll out the projection screen, turn off the light in the area surrounding the screen, lower the lights in the rest of the room to 10% and turn on the digital projector – by one touch of a button.

- **Remote scenario control**
  The individual holding a conference or presentation can select and activate various scenarios remotely, regardless of his or her current location.

- **Variable partition walls**
  GAMMA instabus demonstrates its flexibility once again when it comes to variable partition walls. When
opening partition walls, the control of the conference room adjusts automatically. This is not made apparent to the user. The entire area is now treated as a single room with the same control.

- **Canteens, sanitary areas**
  - *Extractor fan system controlled by presence*
    An extractor fan system that is activated when people are present contributes to a good room climate and saves energy.

- **Automatic deactivation of outlets**
  The automatic deactivation of outlets and devices connected to them outside of defined usage times increases safety and cuts down on costs.

- **Water sensors**
  Water sensors recognize and provide early warnings in the case of leaks and flooding.

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**Highlights**

- Optimal illumination of a bank’s exterior façade
- Functional and flexible conference room usage
- Convenient operation of room functions via desktop PC

- **Motion detectors**
  Motion detectors always provide light at the right time without the guest having to search for switches. And, when the light is no longer needed, they switch off automatically. This saves energy.

- **Garages, underground parking garages**
  - *Lighting according to presence and main usage times*
    In garages or underground parking garages without daylight, lighting can
Third-switching conserves resources

Automatic notification of light fixture failure eliminates the need for inspections

User interfaces suited for every need

Highlights

- Third-switching conserves resources
- Automatic notification of light fixture failure eliminates the need for inspections
- User interfaces suited for every need

The longevity of light bulbs is increased thanks to the “third-switching” method. Resources are conserved and costs reduced.

GAMMA instabus provides immediate notification when a light fixture is defective. Defective bulbs can be directly replaced, and inspections are rendered unnecessary.

be controlled dependent on main usage times and presence. When people are present, lighting is switched to full brightness in the respective area. When nobody is present, lighting is reduced to minimal brightness or, outside of main usage times, switched off completely. This cuts down on energy costs and increases the light bulbs’ durability.

- **Third-switching**
  With GAMMA instabus, a so-called “third-switching” can be implemented: A third of the light bulbs remains switched on for a basic lighting level. This third of the light bulbs, due to their higher usage, will need to be replaced before the other light bulbs. GAMMA instabus makes it possible to simply use all the lights in such a way that they rotate to cover the basic lighting level. By evenly distributing the load, all light bulbs can be replaced at the same time, and the exchanges in the meantime will not be necessary.

- **Tracking of operating hours**
  GAMMA instabus tracks the operating hours of each fixture and provides notification when light bulbs are to be replaced.

- **Notification of defective light bulbs**
  Notification is sent to building maintenance when a light fixture no longer works.

- **Gates and barriers**
  - **Central controlling of gates and barriers**
    Gates and barriers can be controlled safely, comfortably and easily from a control center.

- **Automatic exit driveways**
  Exit driveways can be controlled automatically via motion sensors so that only exiting and no unauthorized entering is possible.

- **The right control for every task**
  Appropriate user interfaces for every requirement
  The best technology is useless if it is difficult to operate. GAMMA instabus was conceived and designed to be so user-friendly so that all users can quickly master its operation. Despite its impressive range of functions, the system is very simple and comfortable to use: from the familiar switches, remote controls, operating displays, touch panels or via a central visualization PC.
### All functions at a glance

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- **Would you like to learn more?**
- Are you interested in the applications described in this brochure for your bank project? If so, your Siemens partner will be happy to assist you and provide additional information.
The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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Answers for infrastructure.
Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

“We are the preferred partner for energy-efficient, safe and secure buildings and infrastructure.”