



## Using energy efficiently.

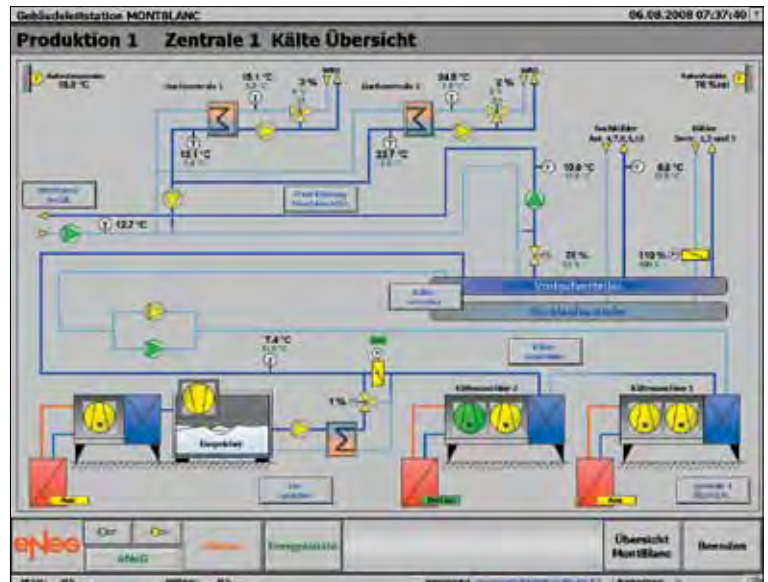
Simple management of the technical systems in a building and efficient monitoring of all the equipment and systems is the dream of every facility manager. zenon turns this dream into reality. One site to benefit from the zenon system is the Montblanc site in Hamburg, with its workshops and administration building.

As an open, manufacturer-independent system, zenon is ideally suited for use in a building management system. The visualisation and monitoring of operating states and the optimisation of operating modes in complex systems enables a building to be managed efficiently. zenon communicates with the automation level via standard interfaces like OPC (OLE for Process Control), LON (Local Operating Network) and BACNet (Building Automation and Control Networks). Every event, such as the failure of a unit, the violation

of a limit value or any type of error message is displayed and managed in the system. Loading patterns (power consumption over a period of time) and temperature graphs are stored in zenon's long-term archive. The facility manager can retrieve this information using the zenon "Extended Trend" module. The information is also available in the form of reports for the purpose of precision analysis. zenon thereby creates a facility for monitoring complex technical systems and control-engineering processes, but most importantly for oper-

ating these systems and processes in the most efficient way possible. This is also the task that falls to Claus-Dieter Brandt and his colleagues who are responsible for operational systems at Montblanc, the traditional company based in Hamburg. The team must respond quickly to fault messages and either restore the functionality of the device or the system or start repair work – this applies to the production facilities as well as administration. "Our particular challenge in building management systems is to reflect growing structures

and changes in a company as quickly as possible, and to monitor all systems efficiently”, explains Claus-Dieter Brandt, building technology manager at Montblanc Simplo GmbH in Hamburg. This company is now characterised by growth because the demand for Montblanc products is stronger than ever. For several generations Montblanc has been well-known as the manufacturer of exclusive writing equipment, and more recently the company has also established itself as a supplier of watches, jewellery and leather items in the luxury goods sector.



## WRITING CULTURE AND CRAFTSMANSHIP

These exclusive products are produced by Montblanc, which was founded in 1906. They satisfy the strong demand for traditional European craftsmanship and timeless design. Montblanc employs around 2,400 people in 28 subsidiaries, and supplies its luxury products to some 6,000 retail outlets in 70 different countries and to 70 Montblanc boutiques. Montblanc belongs to the Richemont Group, which was founded in 1988 and is based in Geneva. The Group specialises in luxury goods, and its member companies include the renowned jewellery and watch firms Cartier, Piaget, Van Cleef & Arpels, IWC, Jaeger-LeCoultre, Lange & Söhne and Panerai. The Group also includes other well-known names such as Dunhill, Baume et Mercier and the fashion company Chloé. Montblanc manufactures its products in Germany, Italy and Switzerland in order to use and also to preserve the expertise of traditional European craftsmanship. Montblanc produces its writing implements at its original factory in Hamburg. The process is still very much a manual one involving the skill of craftsmen, and production remains centred on the artisan's studio. These studios produce very limited numbers of ornate collectors' pieces and individually made special editions. Not only

are the artisans' studios located in Hamburg but also the company's main administration and international headquarters. Montblanc has around 1,000 employees based at this site. The production branch of the company is called Montblanc Simplo GmbH. It is located in Hamburg and has 820 employees.

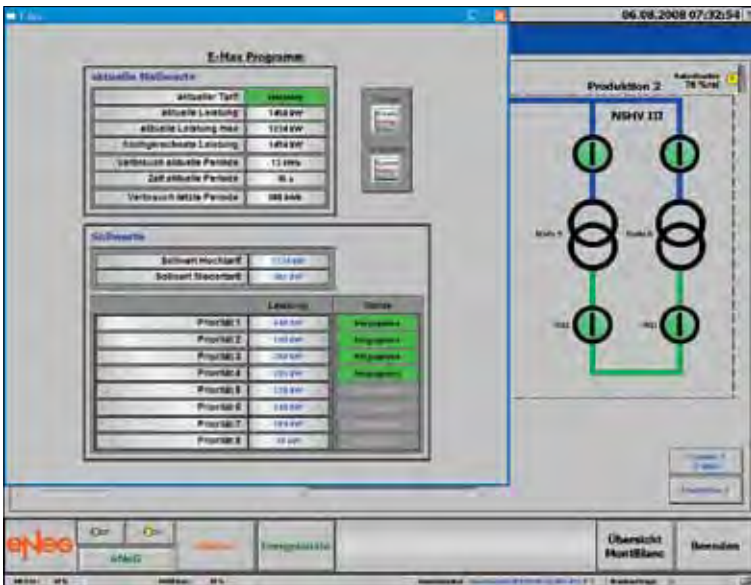
## ZENON OFFERS SECURITY AND PROTECTION OF INVESTMENT

Montblanc sets very high standards for safety, comfort and air conditioning in its production facilities and administration offices in Hamburg. At the same time the company aims to keep power consumption and operating costs to a minimum. Claus-Dieter Brandt therefore set out to find a building management system that would be capable of meeting these criteria. "What we were looking for was some standard software that would offer protection of our investment. It was also important to us that we could count on professional support from experts and professionals while installing and operating such a system", explains Claus-Dieter Brandt. Montblanc has chosen the COPA-DATA system

partner eNeG to work on this project. eNeG is also based in Hamburg, and specialises in designing and installing intelligent building automation systems based on BACNet, LonWorks and Profibus, eNeG works with state-of-the-art components and makes certain that they interact perfectly. eNeG is involved not only with building automation but also power supply systems. The range of services they offer extends to maintenance, servicing and monitoring. eNeG has 60 employees, and its customers include various well-known companies including Jungheinrich AG, Beiersdorf AG, Hamburger Sparkasse as well as MontBlanc Simplo GmbH.

## THE QUEST TO FIND A STABLE STANDARD SOLUTION WAS SUCCESSFUL

The Montblanc team was keen to install a standard solution that would be stable and capable of running twenty-four hours a day. Claus-Dieter Brandt already had positive experience with zenon from earlier in his career. He evaluated a number of other solutions too, but ultimately his decision was an easy one to reach. Three buildings – the administrative offices and



two production facilities – are now monitored centrally using zenon. In total these buildings have been fitted with five technical hubs. There are 25 ventilation systems (HVAC systems), two compressed-air systems each with two compressors, two heating systems each with two boilers, and two cooling systems with ten compressors. Each technical hub also includes a heat-recycling system. The company has now been working with zenon since 2002, with the primary focus on operating and observing the technical systems in the buildings. At Montblanc these systems include HVAC, compressed air and extraction systems in the laboratories, heating and hot water supply. To condition the air in the administration building alone Montblanc uses 77 coolers and four external cooling systems.

**TREND ANALYSIS IS ESSENTIAL**

In total, the systems in the main building include some 2,800 data points, with a further 600 data points in the new Montblanc logistics centre. All these systems are comprehensively visualised in zenon. Any problems or discrepancies

between target values and actual values are logged in zenon, whereby any consequences they may have will become apparent. Claus-Dieter Brandt views the target values and actual values and any differences between them in the form of a graph. This is made possible by the “Extended Trend” module. This module allows historical data (e.g. all the information recorded in the course of a heating cycle) as well as on-line data to be retrieved and viewed in the form of a graph. In this way, those responsible for the building management system can see how the systems are performing, when critical states in the systems occur, and where immediate intervention is required. It is equally important to observe systems over a considerable period of time – ambient conditions such as outdoor temperatures vary and affect the performance of a system.

**EASY TO OPERATE**

Claus-Dieter Brandt finds zenon very easy to use: when an alarm is selected in the alarms list, a simple click on the “System display” button will automatically open the relevant alarm display. This allows system components to be inspected in detail;

the operator can, for instance, determine which system component is in operation or has triggered a fault message. The cooling and ventilation systems feature an overview display, from which you can move on to the detailed views. Filters, heaters, coolers, fans – detail displays are available as required for each component in a ventilation system. These displays clearly indicate whether valves and sensors, for instance, are operating correctly. Thanks to this comprehensive visualisation, Claus-Dieter Brandt is now able to run and regularly update a complex building management system with just a small team and low overheads. And there are even plans to extend the system: the system manager can easily conceive being able to monitor these systems remotely and to upgrade the alarm management system so that alarms are forwarded to the mobile phones of relevant staff; such systems are already in place at the new Montblanc logistics centre. This ensures that thorough monitoring can be carried out twenty-four hours a day. As old systems are replaced one by one, all the new systems are automatically integrated with the zenon system. This will result in central monitoring, an increased concentration of data, and thus an even more comprehensive flow of information. “All new systems are now linked in with the building management system – zenon will play a part in every single project”, explains Claus-Dieter Brandt with a look of conviction in his eyes. The manager is planning to gradually step up the use of this system. His intention for the future is to store detailed system descriptions as well as dependencies so that in the long term data can be analysed even more specifically and preparation can be carried out for maintenance operations. Likewise, the management team in Hamburg is to be linked up with the new logistics centre in Ellerbek, so that this second site can also be monitored and checked centrally.