



# energy efficiency is our business.

# GFR — Gesellschaft für Regelungstechnik und Energieeinsparung mbH

Being one of the leading providers in our branch, we develop and sell innovative system solutions for building automation and energy management.

We have been taking care of saving energy for more than 35 years.

Our name is our commitment and our mission is more relevant than ever before. Buildings being automated by GFR are not only economically optimised but also reduce  $CO_2$  emissions, provide increased sustainability and a better future.

We look forward to giving you a short insight into WEBVISION 5 - the new generation of building management software.



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## **WEBVISION 5**

## The new generation of building management software



About 80% of total costs arising within the life cycle of a building account for its operation.

The share of all buildings in the world-wide primary energy consumption is at  $40\%\ \text{per year}.$ 

Thus, there is a huge potential to contribute to the economy and responsible use of resources by effectively operating buildings. WEBVISION 5 takes up this challenge.

## The top reasons for WEBVISION 5

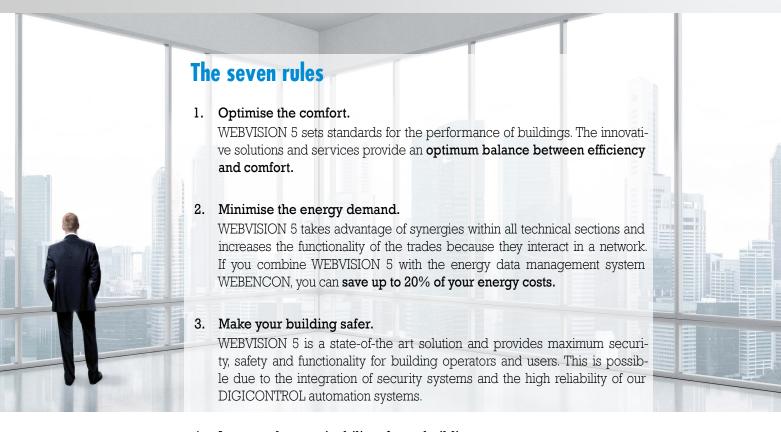
- 1. WEBVISION 5 supports you in reducing the CO2 emissions considerably and operating your building more efficiently. **Cost savings of up to 15-20% are realistic.**
- 2. WEBVISION 5 simultaneously ensures 100% comfort with maximum energy efficiency. Terms like performance, security and user-friendliness are completely redefined by WEBVISION 5.



- 3. Having one building management is sufficient. **WEBVISION 5 allows controlling and optimising all maintenance groups** in a building: from heating, ventilation, air-conditioning, sanitary, illumination, shading, room automation, energy data management, fire protection, video surveillance, burglary protection to access control.
- 4. Take advantage of our know-how. WEBVISION 5 was developed in-house and is based on our 35 years' experience in creating intelligent building management systems.
- 5. Being an integral part of the building management system DIGICONTROL and system engineering WEBPROJECT, WEBVISION 5 provides an **unprecedented** consistency from planning to operating and optimising smart buildings.
- 6. The **intuitive operation** of WEBVISION 5 simplifies the handling for users, spanning from overviews down to data points. This builds trust, operating the system is a pleasure and **users are not afraid of utilising the software.**
- 7. WEBVISION 5 does not only provide **maximum reliability but also data and IT security.** It ensures 100% availability in connection with high-availability servers, particularly for plants with increased security requirements.



# They key to success for your building



#### 4. Improve the sustainability of your building.

WEBVISION 5 supports you in optimising the economic potential of your building and in increasing the benefit for human beings and society. The system contributes significantly to sustainability and the preservation of the ecosystem and environment.

#### 5. Protect your investments.

The requirements for buildings constantly change during their life cycle. WEBVISION 5 has a flexible structure and is prepared for changing building utilisation. Many of our customers have appreciated the benefit of compatible building automation systems since 1978 until today, and also in the future.

#### 6. Sustain values.

WEBVISION 5 uses resources economically, reduces the adverse environmental impacts and helps to create and maintain values.

#### 7. Improve your image.

WEBVISION 5 ensures energy-efficient and resource-saving operation of buildings. This is perceived by the general public and your company will enjoy a positive image and reputation.

## **WEBVISION 5**

# The solution for your building



## Hospitals

The focus when running hospitals is on **economic efficiency, security and hygiene.** Being furnished with functional and integration modules, WEBVISION 5 offers a complete management system which also meets the complex requirements of modern hospitals.

#### **Administration centres**

WEBVISION 5 ensures **perfect working conditions** and optimum comfort at maximum energy-efficiency. It contains **flexible solutions** which adapt the management system to changing space divisions and room utilisations.

### **Educational institutions**

Energy-efficient building systems provide **excellent learning conditions** under consideration of variable occupation densities and times. WEBVISION 5 comprises all modules for the optimum and energy-efficient operation of rooms and halls.

## **Shopping Malls**

A building system in the trade sector has to be flexible as it relates to changes in space utilisation and sizes, branch structures, opening hours and customer frequencies. WEBVISION 5 offers **maximum flexibility and transparency** by integrating supraregional branch networks.

#### **Hotels**

The changing occupation densities and times of rooms and unequal people's feelings of comfort are the special characteristics of the hotel business. WEBVISION 5 ensures maximum energy utilisation and minimum costs for the operator by integrating hotel reservation systems.

#### **Event locations**

Locations like gymnasiums, multifunctional arenas or theatres provide special potentials for optimisation due to their functional diversities. WEBVISION 5 enables the integration of all trades of technical building services and is the **basis for a secure and economical operation of the facility**.

#### Living

Building automation and management system have to meet individual requirements in the living area. Rooms for living, sleeping, cooking and working are used differently at various day and night times and by **occupants of different ages and preferences.** 



# Planning building management systems effectively ... from the very beginning

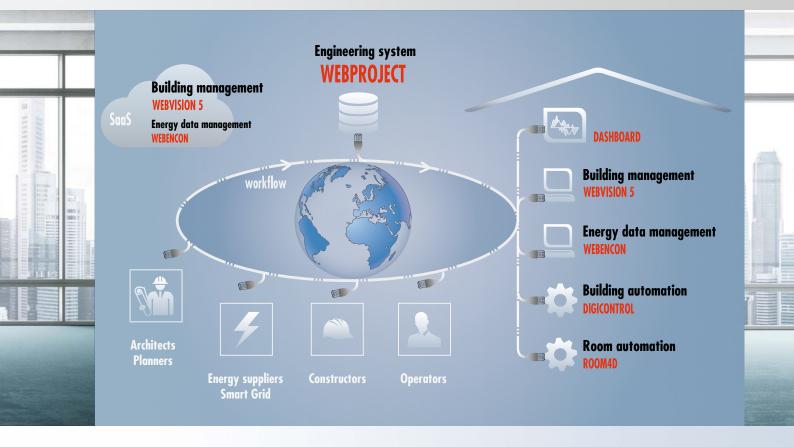


A planning network and the coordination of all involved parties are required for recognising and taking advantage of arising opportunities. The implementation involves integral planning processes on basis of entire system engineering.

All project and automation data from WEBPROJECT and webCADpro (parameter setting of controllers) constitute the basis for the installation and automated configuration of hierarchical menus, operating pages and plant graphics of WEBVISION 5. This is why WEBVISION 5 offers maximum efficiency right from the phase of engineering.

This ensures considerable time and cost savings, reduces the service expenses to a minimum and ensures 100% consistency from planning to operation.

The digitalised project and product data are used for the communication with further building systems, like facility management or Smart Grid and provide the basis for the integration of the technical building management into building information modelling systems (BIM).

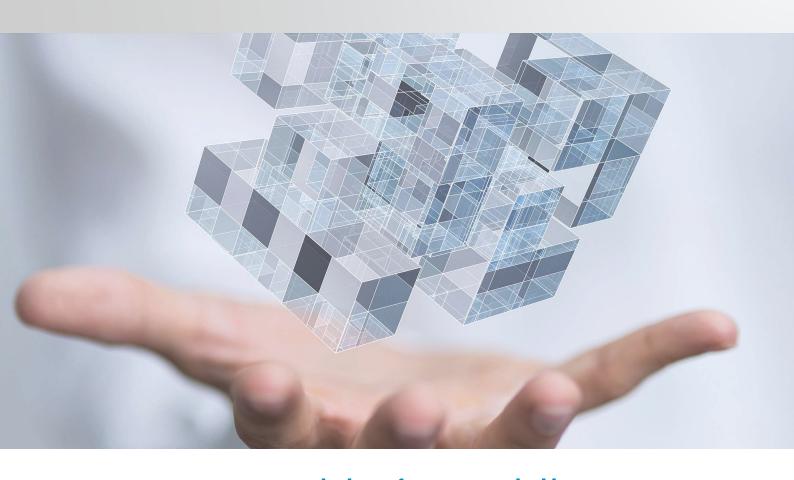


WEBPROJECT is the basis of all building automation data and enables architects, planners, energy suppliers, automation specialists, builders and operators to start their networked and integral planning.

- WEBVISION 5 offers maximum efficiency right from the planning phase.
- WEBPROJECT is the basis of all up-to-date planning data and can be easily accessed online by all people involved.
- The digitalised project and product data can be made available for further systems.



# What is the purpose of integration?



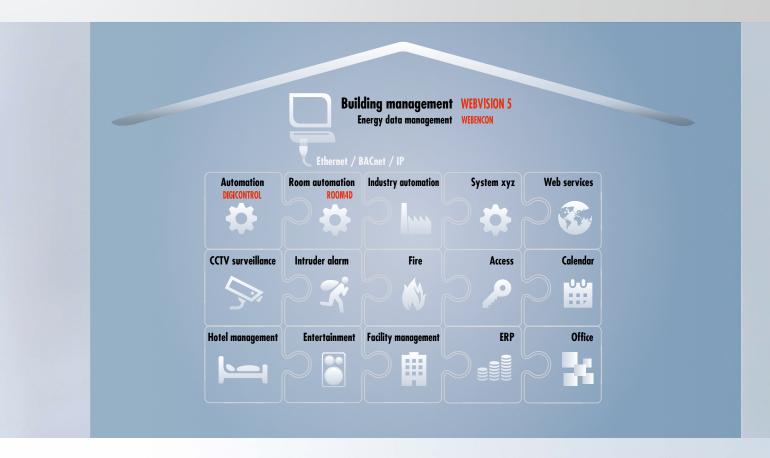
# Integration - The basis for operating buildings energy-efficiently and comfortably

WEBVISION 5 implies the effective interaction of all automation systems and further components of the technical building services. The open system architecture, the application of world-wide standards and uniform interfaces provide maximum flexibility for the implementation of integration solutions.

WEBVISION 5 supports standard protocols like BACnet, Meter bus, Modbus and OPC which allows the integration of third-party products.

The BACnet standard in WEBVISION 5 which is supported by the B-AWS (BACnet Advanced Workstation) profile ensures an open communication, the compatibility with products from other manufacturers and the energy-saving and reliable operation of plants.

WEBVISION 5, particularly in combination with the certified automation system DIGICONTROL ems2 - BACnet Building Controller (B-BC) / BACnet Protocol Revision: 1.12 / DIN EN ISO 16484-5 / AMEV Profile: AS-B, constitutes a highly effective tool for energy-efficient and sustainable buildings.



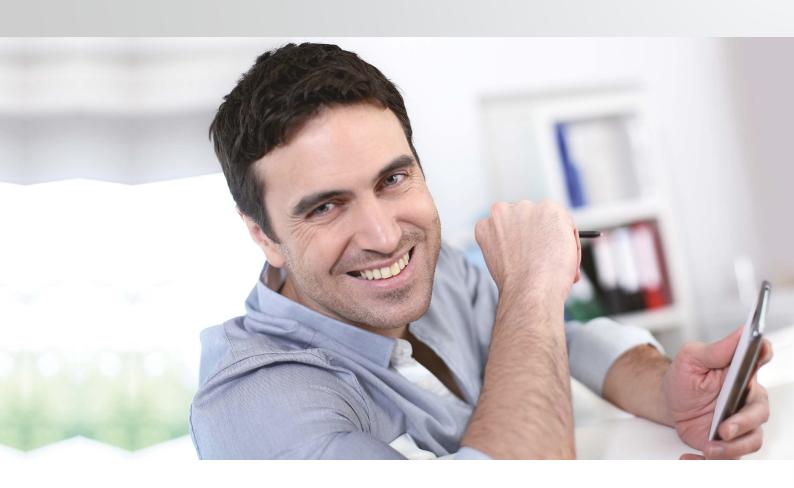
Open interfaces enable the integration of all building trades like alarm systems, fire detection systems, ERP systems, office systems, facility management, hotel management, entertainment systems and industrial automation.

Synergies resulting from the integration of all systems of the technical building services can be used for various purposes like

- Enhancement of security
- Improvement of functionality
- Optimisation of energy-efficiency
- Improvement of comfort



# Simple and intuitive: Operation via mobile devices



## **Common practice today**

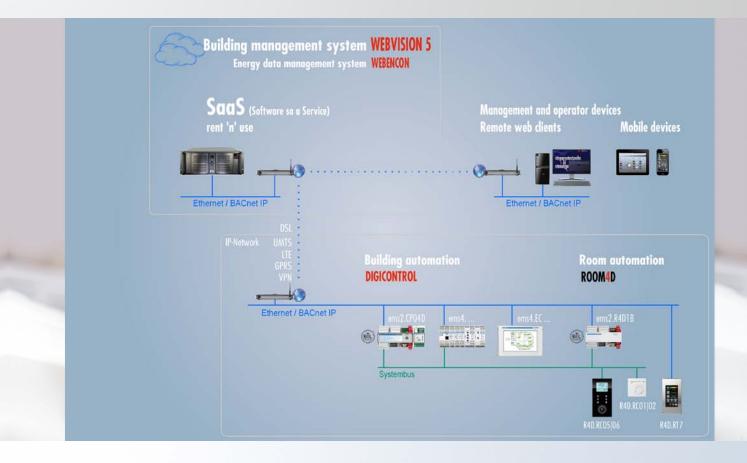
As simple and intuitive as operating smartphones and tablet PCs. That is your demand which is indeed met by WEBVISION 5.

Mobile communication and building system technology are steadily growing together. WEBVISION 5 introduces a new dimension of mobile operation. You are entirely independent and in control in a comfortable and safe way, even though you are off-site.

Installing the app is not necessary as everything works by means of a web browser. You always get the optimum view, independent from the device, the operating system and the screen size. The simple navigation enables you to access the desired information quickly and efficiently.

Another highlight: Mobile usage is facilitated substantially by a cutting-edge search function which is directly performed from the start page and provides comprehensive results. Thus, you can find all requested information at a glance: technical plants, messages, operating modes and everything else you are looking for.

# The future is now: The cloud solution



## Highly efficient: SaaS (Software as a Service)

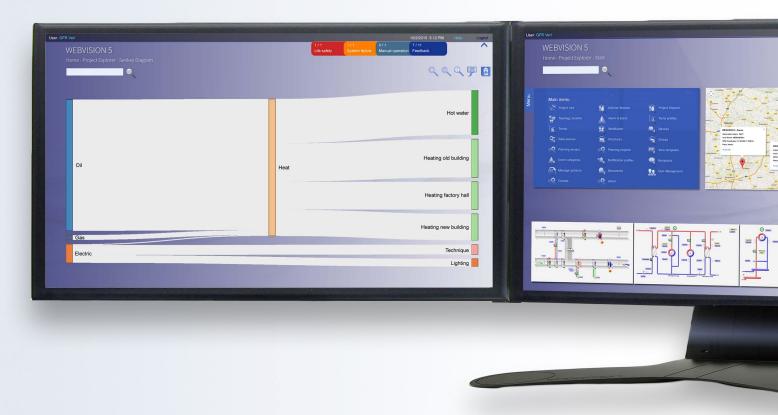
The rent'n'use model means that WEBVISION 5 is not installed on your local server but on a web server in our data centre where you can access it via web browser without having any function restrictions.

## **Your benefits**

- No investment for hard and software
- Moderate and predictable rental charges according to the number of integrated controllers
- Building management software is always up-to-date
- No costs for maintenance and repairs
- No administrative costs
- Secure internet availability from every location in the world
- High availability: The leased server is available 24 hours seven days a week
- Enterprise firewall protection by means of a redundant firewall cluster



# **WEBVISION 5 - My building management**

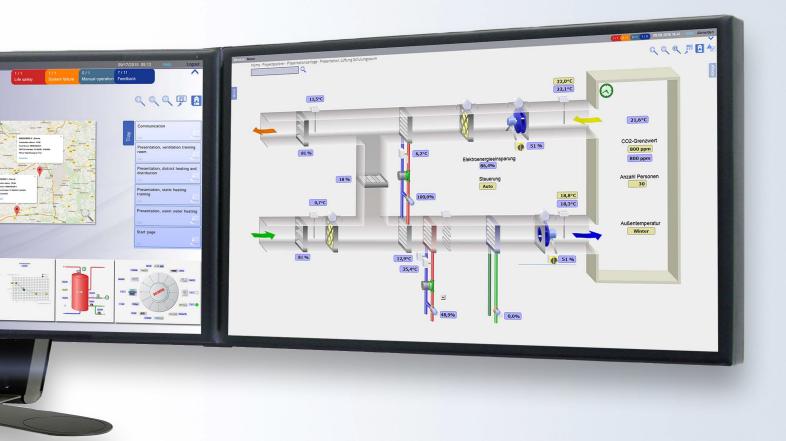


## **Intuitive operation**

WEBVISION 5 offers state-of-the-art handling by providing optimum comfort and intuitive operation from the system overview down to the data point. This builds trust, operating the system is a pleasure and users are not afraid of utilising the software.

#### **Customised individual solutions**

The open system structure of WEBVISION 5 allows a personalised customisation of user interfaces. The configuration of the interface contents is performed dependent on the user role, responsibility and personal preference of the respective user. Accordingly, tailor-made user interfaces and individual solutions are made available.



# WEBVISION 5 is based on global and uniform IT standards

- Operating system Windows Server 2012
- SQL server data bases
- Compatible with standard web browsers (also mobile)
- High availability server (on request)
- Standard interfaces for the integration of third-party software
- BACnet profile B-AWS (BACnet Advanced Workstation)

## **WEBVISION 5** is multicultural

- Support of any language and culture
- Support of any physical unit and number format



## **Project explorer**

The WEBVISION 5 project explorer allows the comfortable and intuitive operation of the building management system.



#### Tailor-made user interfaces

- Individually adjustable navigation views: tiles, lists or project tree
- Simple access to user-relevant set point values
- Displaying system feedback messages of user actions
- Support of parallel user instances, e.g. planning, test and productive system or previous version
- Support of variable structure types like plant, rental areas and location structure, etc.

### You shall not search but find

- The search function for all system components like plants, groups, graphics, trends, trend profiles, documents, data points, messages, notifications, etc. allows to find the searched topic quickly and easily.
- The advanced search function enables the navigation within the search results. The user immediately gets all information on further connections of the searched topic.

## **Present correlations comprehensively**

- Parallel representation of plant structures (Engineering, Accounting, Administration)
- Display of data point groups



## Webbuilder

The WEBVISION 5 Webbuilder is used for configuring the building management system. A huge number of automated processes are employed here.



## Impressively fast and reliable configuration

- Import of WEBPROJECT engineering data
- Import of DIGICONTROL automation data
- Import of all BACnet data
- Administration of any data source

## Saving time through using templates

■ Taking advantage of templates for dynamised plant graphics, diagrams, users, ...

## **Drag and Drop**

- Creation of individual navigation structures
- Arbitrary assignment of trades, groups, plants and graphics to navigation structure
- Filing tray for saving frequently used applications



## **Trend**

The WEBVISION 5 trend module allows to evaluate historical plant data and to process notification statistics and value/status changes in connection with logged trend /event data.



## Simplifying the visualisation of historical data

- Up to 12 trends, distributed on either one or two time axes
- 4 Y axes
- Zoom function down to the smallest detail
- Freely configurable trend profiles



## **Alarm & Event**

The WEBVISION 5 alarm and event module is used for processing and visualising events and notifications of the building automation system. The module meets the requirements of VDI/VDE 3699 sheet 5 (Process control with screens, alarm messages).



## Always in the foreground

Simultaneously to the application, the user interface displays the messages and information
which are important for the user in the foreground. This representation is performed in a sorted
and categorised way while using different background colours.

## Overlooking and forgetting made impossible

- Present notification statistics on every page
- Immediate overview of notification and alarm priorities
- Configured overviews for present, historical and system notifications
- Freely configurable alarm and event categories for the represented information within a statistic
- Advanced filter functions
- Acknowledgement of individual notifications and group acknowledgement
- Acknowledgement is immediately visible through symbol change and user name



# **User management**

The WEBVISION 5 user management allows the administration of complex user structures and user roles with various rights (e.g. working with modules, functions, documents and the system itself).



## From the facility manager down to the janitor

- Flexible and easily configurable authorisation concept
- User roles with summarised individual rights

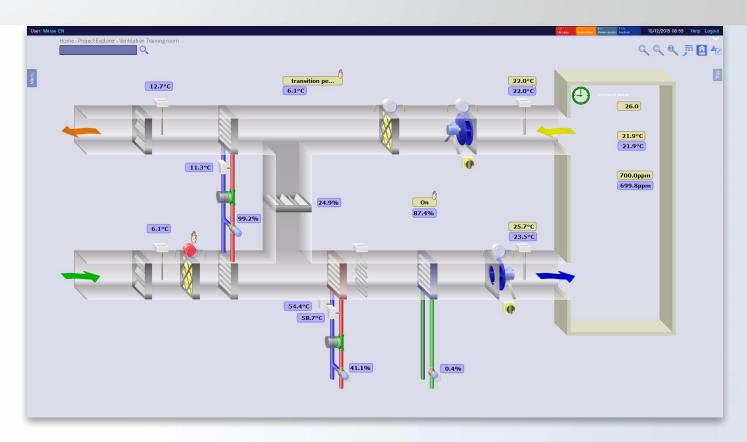
## **Tenant-capable**

- Managing several projects of one or different customers on one system where every user (tenant) can only access his data.
- Central installation and maintenance of the software
- Low memory requirements
- Reduced costs



## Visualisation

WEBVISION 5 realises a three-dimensional visualisation and animation of technical building services on basis of scalable vector graphics.



## As large or as small as you desire

- Arbitrarily zoomable plant graphics (without additional installations or plug-ins)
  The visualisation of the symbols and plants is performed in vector format. The freely adjustable and loss-free scalability is one of the essential characteristics and benefits in contrast to the conventional visualisation by means of raster graphics.
- Semantic zoom (displaying and hiding information)
   Unlike the standard graphic zoom which scales the details of objects up or down, the semantic zoom modifies the graphical representation, the display of the structure and the selection of data.
- Optional: Three-dimensional plant graphics

## Responsive design

Automatically scalable and flexible screens on stationary and mobile devices

### A matter of taste

Take advantage of the excellent designs of WEBVISION 5. Here you have access to adjustable background colours and styles to match your individual taste.



# **Energy flow charts**

WEBVISION 5 enables the graphical representation of quantity flows via Sankey diagrams.



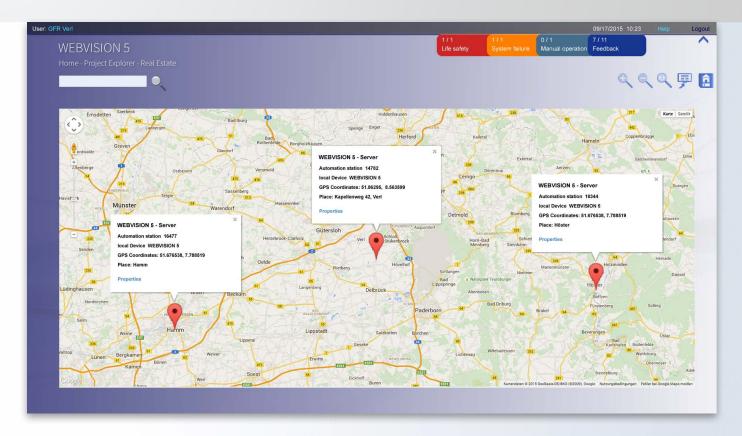
## Representing data and consumptions concisely

- Sankey diagrams are essential tools for visualising energy quantity flows, inefficiencies and saving potentials with regard to managing resources.
- Unlike in flow diagrams, the quantities are represented via arrows which are proportionally dimensioned to the quantity.
- If you wish to recognise saving potentials, consumptions have to be visualised comprehensibly. A diagram is ideal for this purpose.



# **Facility management**

Google Maps can be used and customised for visualising locations, objects and sets of controllers.



## Simple and clear - Google Maps

- Why should you reinvent the wheel? Google Maps is the familiar interface for representing your distributed facilities.
- All quick information and important messages for the respective object can be obtained within the map where you can jump to the location via a mouse-click.
- Another graphical navigation through the objects and distributed plants is performed in the selected facility.



# Applications DASHBOARD



## Building and energy data clearly displayed at a glance

Many companies and building operators present their visitors concise energy and building data in their entrance areas. The DASHBOARD displays selected building data clearly and at a glance, independent from the manufacturer of the management and operation controls.

#### **Applications and output media**

- Large screens in entrance areas or control centres
- Monitoring on mobile devices, tablet computers and smart phones
- Accessory for management and operating units

#### Added value for the operator

- All data being important for the user are available at a glimpse
- Information is always processed in a way which allows a simple and up-to-date representation

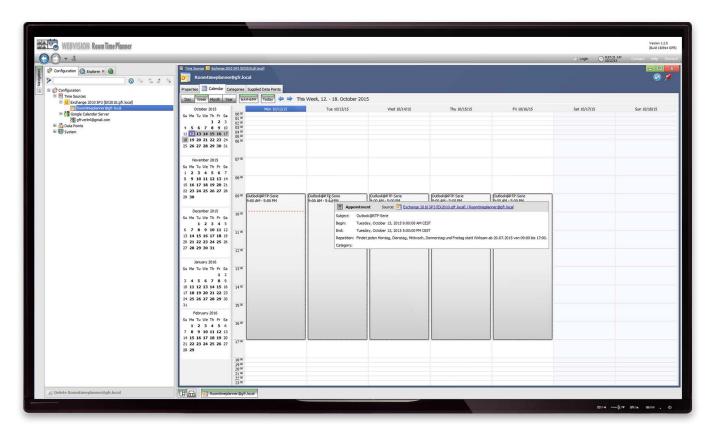
#### **Data sources**

- All data derive from csv files which can be generated by all kinds of computer systems (e.g. SAP). Thus, there are manifold possibilities to import data into the DASHBOARD.
- If building and energy data have to be represented, WEBVISION, WEBVISION 5, WEBENCON and the automation system DIGICONTROL provide interfaces for the generation of required data.



## **Applications**

## **RoomTimePlanner**



# Saving energy by planning room utilisation times and set point values

The occupation times of rooms are basically defined once only, exactly when the building or plant are taken into operation, and maintained unchanged ever since. Hence, the operating mode of building automation and heating cannot be adjusted to the actual utilisation of the building. Instead, the room temperature set point values are unnecessarily kept, even in periods of non-use or if there is no utilisation at all.

#### The solution

RoomTimePlanner provides an interface between different office calendar systems and BACnet-compatible building automation. The times and set point values for room heating are constantly recalculated by the RoomTimePlanner, being based on the actual room occupation in accordance with the entries in the timetables, and then transferred to the building automation system. As a result, energy can be saved and the building can be operated efficiently in every utilisation phase.

#### **Available time management systems:**

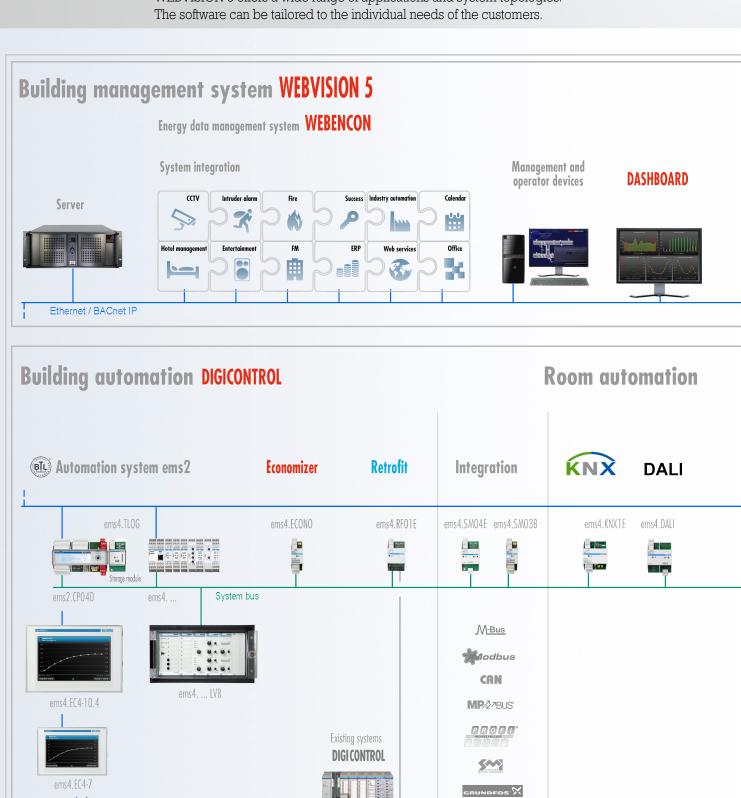
- Timetable planning software GP Untis/WebUntis
- Exchange Server (Outlook)
- Google Calendar
- Yahoo Calendar



## **WEBVISION 5 - System topology**

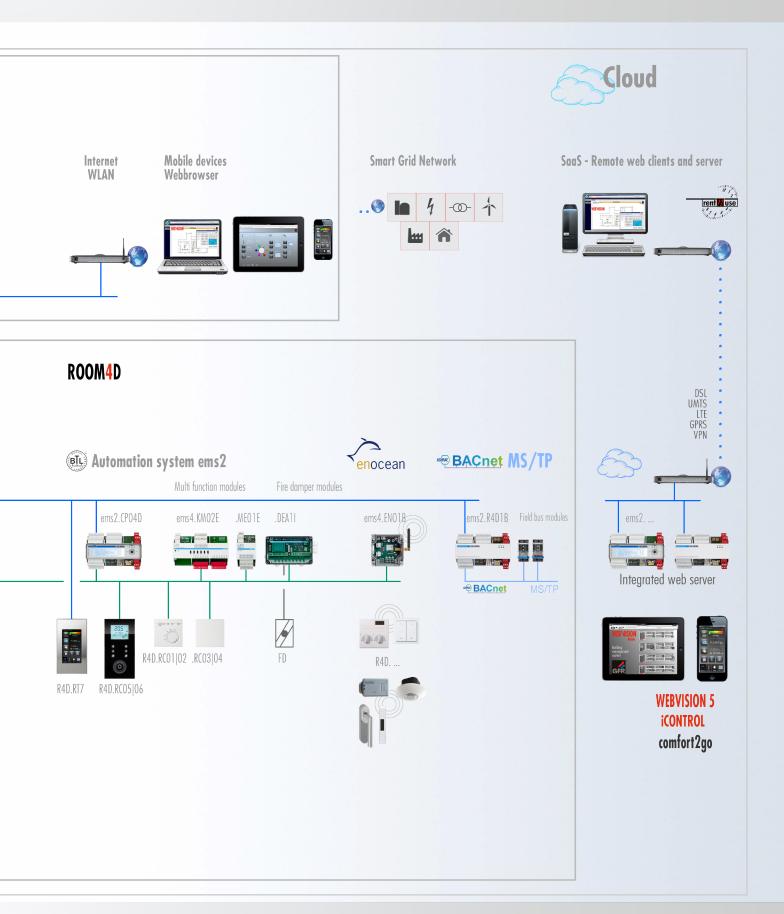
# **Consistent - comprehensive - complete**

WEBVISION 5 offers a wide range of applications and system topologies.



W/LO schüco

ems4.ec3-TE



#### **Region Mitte**

#### GFR Verl - Company headquarters

Kapellenweg 42 D-33415 Verl Tel.: +49 52 46 / 9 62-0 Fax: +49 52 46 / 9 62-199

#### Subsidiary Hannover

Wiedemannstraße 1 D-31157 Sarstedt Tel.: +49 50 66 / 997-400 Fax: +49 52 46 / 9 62-199

#### **Region HANSE**

#### Subsidiary Hamburg

Alter Teichweg 37-39 D-22081 Hamburg Tel.: +49 40 / 27 832-100 Fax: +49 52 46 / 9 62-199

#### Region NORD-OST

#### Subsidiary Berlin

Friedrichshagener Str. 6b D-12555 Berlin Tel.: +49 30 / 61 79 588-0 Fax: +49 52 46 / 9 62-199

#### **Region MITTEL-DEUTSCHLAND**

#### Subsidiary Jena

Rudolstädter Str. 41 D-07745 Jena Tel.: +49 36 41 / 46 97-0 Fax: +49 36 41 / 46 97-13

#### Office Dresden

Louis-Braille-Str. 8 D-01099 Dresden Tel.: +49 351 / 81 08 28-0 Fax: +49 36 41 / 46 97-13

#### Region BAYERN

#### Subsidiary München

Adalperostraße 80 D-85737 Ismaning Tel.: +49 36 41 / 46 97-0 Fax: +49 36 41 / 46 97-13

#### **DIGICONTROL Benelux B.V.**

Watermanstraat 29a NL-AJ 7324 Apeldoorn Tel.: +31 55 36 / 80 53-0 Fax: +31 55 36 / 80 53-1

#### **GFR Austria**

Trapplstraße 8 A - 3151 St. Georgen / St. Pölten Tel.: +43 27 42 / 40 500 Fax: +43 27 42 / 86 260

#### Office Hannover

Industrieweg 28a D-30179 Hannover Tel.: +49 511 / 89 95 97-41 Fax: +49 52 46 / 9 62-199

#### **Region SÜD-WEST**

#### Subsidiary Stuttgart

Dornierstraße 4 D-71069 Sindelfingen Tel.: +49 70 31 / 41 00 93-40 Fax: +49 36 41 / 46 97-13

#### Region RHEIN-MAIN

#### Subsidiary Frankfurt

Gutleutstraße 322 D-60327 Frankfurt a.M. Tel.: +49 69 / 27 13 888-40 Fax: +49 52 46 / 9 62-199

#### **Region RHEIN-NORD**

#### Subsidiary Köln

Olper Straße 113 D-51491 Overath-Steinenbrück Tel.: +49 22 04 / 9 87 93-0 Fax: +49 52 46 / 9 62-199

#### **Region RUHR-EMS**

#### Subsidiary Münster

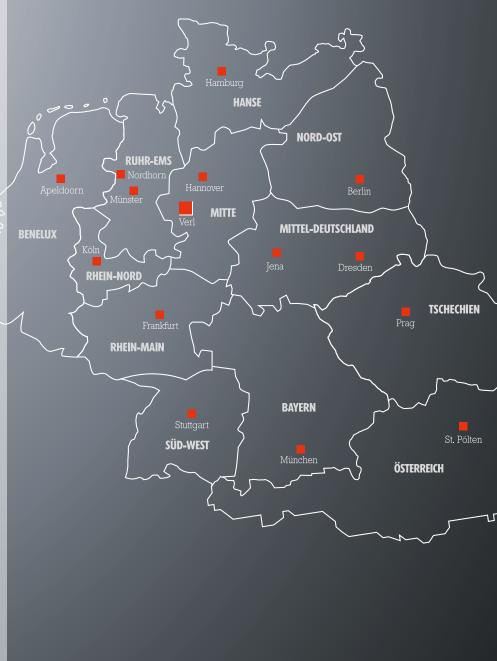
Webereistraße 3 D-48565 Steinfurt Tel.:+49 25 52 / 63 81 87 Fax:+49 52 46 / 9 62-199

#### Office Nordhorn

Kokenmühlenstraße 16 D-48529 Nordhorn Tel.:+49 59 21 / 788 283-0 Fax:+49 52 46 / 9 62-199

#### **Subsidiary Czech Republic**

Vyskočilova 1326/5 CZ-140 00 Praha 4 - Michle Tel.: +420 / 236 034 500



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