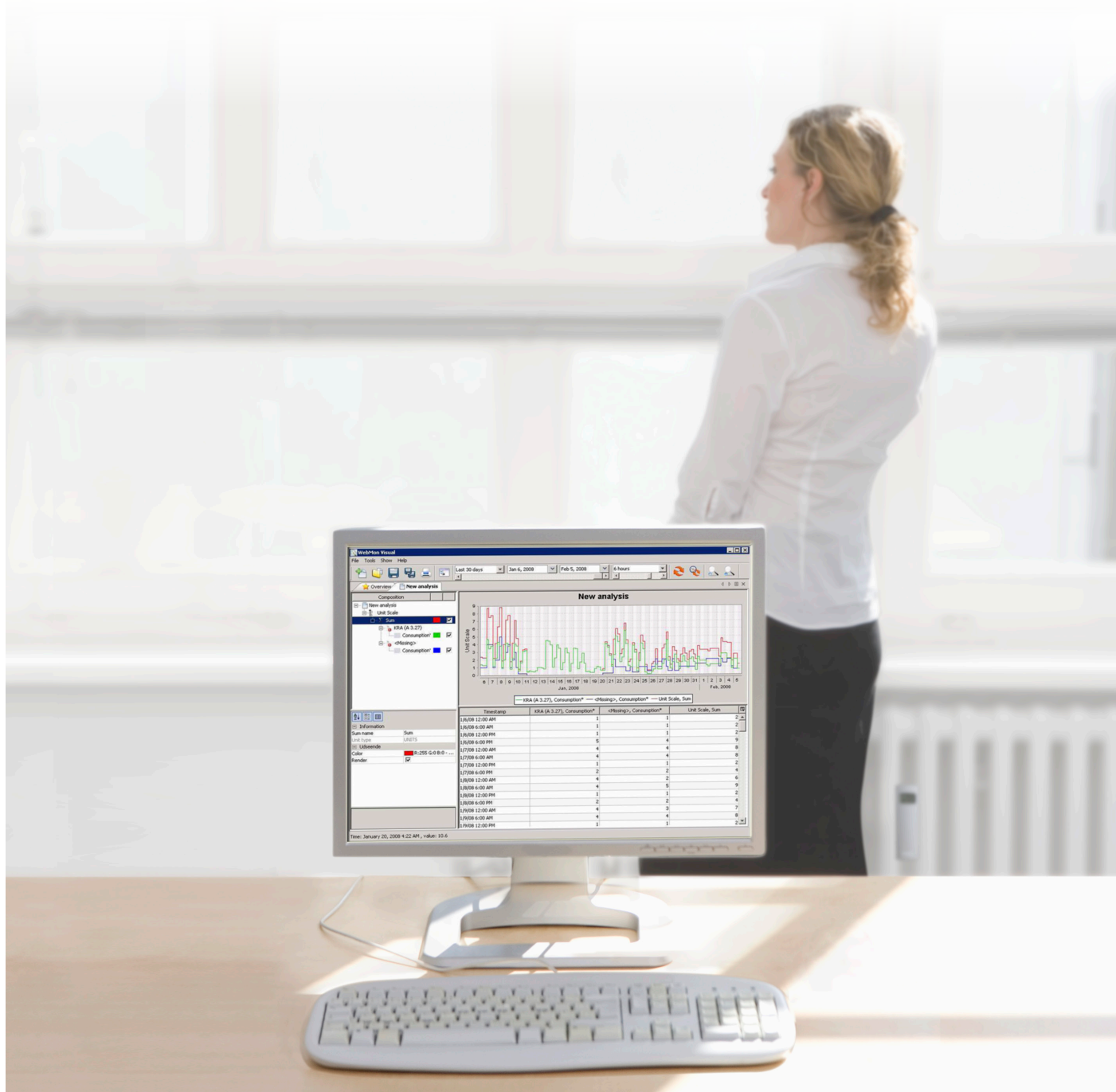


Brunata WebMon Visual BrunataNet

– online monitoring

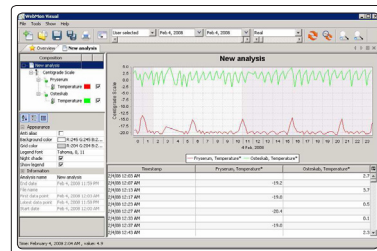


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Brunata WebMon Visual is a rich client extension to our existing WebMon services. It provides an easy way to monitor, analyse and extract various kinds of meter data from Brunata's systems. With WebMon Visual, you are given a complete and detailed overview of your entire meter portfolio and can instantly generate an analysis with both a graphic and a table view of the data.

The system is a very suitable tool for continuous monitoring of a building's energy efficiency. Today's focus on energy savings and energy efficient buildings requires methods and systems, which can map energy consumption in buildings. Brunata WebMon Visual provides a completely new opportunity for very detailed logging of large amounts of data and enables you to present the data in charts.



Brunata WebMon Visual has many advantages:

- Wireless data transfer with logging of large amounts of data
- Online information about every meter in the building
- Identification of radiators or thermostatic valves behaving abnormally
- System overview and illustration of a building's energy usage
- Overview and exact mapping of the real energy consumption in all types of buildings
- More efficient utilisation of energy and energy savings without comfort reductions
- Improved indoor environment
- Optimisation of operation and verification of discrepancy accusation
- Flexible and mobile registration equipment at a favourable price

Advantages for administrators

You may consider WebMon Visual a more advanced version of WebMon, suitable for power users who require more than just an occasional glimpse at a meter value. As an administrator of a building, you have many advantages. You can add an arbitrary number of meters, combine different registration types on individual scales, summarise data, export the data, export the chart, print it, save the analysis and much more.

By using WebMon Visual, administrators can map energy consumption and energy waste in buildings and use the information to develop a targeted and effective solution to a problem. It can also be a very useful tool when answering questions from occupants regarding their heating costs.

Brunata WebMon Visual

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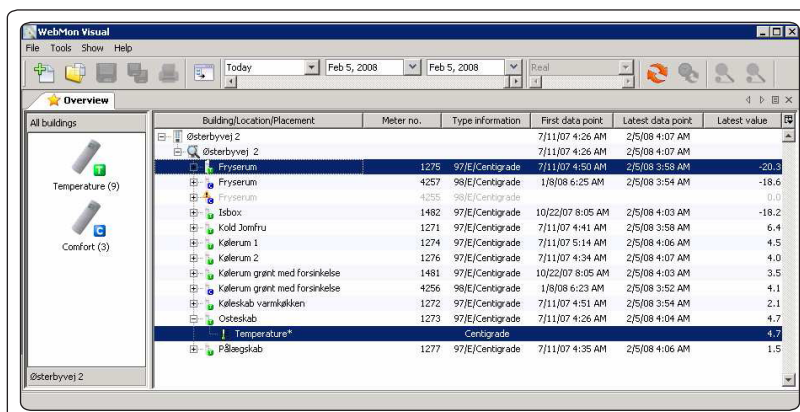
Advantages for residents

As a resident, you get a detailed presentation of the total energy consumption of your flat from WebMon Visual. It also allows you to compare your consumption with the consumption of flats similar to yours.

WebMon Visual can easily help you detect radiators or thermostatic valves behaving abnormally. In this way, you may become more aware of inefficient utilisation of energy and achieve energy savings without reduction of comfort. By monitoring your consumption on a daily basis you are able to adjust your heat consumption pattern and achieve greater awareness of possible consumption reductions.

About the programme

Overview: When you have logged in, an "Overview" document will be created for you. This document represents your entire meter portfolio. While the overview document is good for gaining a complete overview over your portfolio and confirm meter activity, its primary function is to serve as a selection interface for detailed viewing of registration data. For this, you may select any number of registration types as well as a period, and click on "Create new analysis" in the tool bar (or menu bar).



Example in which the meter no. 1275 (and its default registration) is selected as well as the temperature registration of meter no. 1273. After selection, you specify a period on the tool bar and click the "Create" button to create a new analysis with the selected registrations.

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Analysis: When you create an analysis, the required data are downloaded from Brunata, whereupon a new document is created next to the existing "Overview" document. An analysis document is made up by four separate views.

An analysis document consists of four distinct parts



The graphic chart view with two meters, each showing one registration over one day.

Chart view: The chart view is a graphic representation of registration data for the meters selected for the analysis. You can zoom and pan in on this view using the mouse or the tool bar buttons. You manipulate this view (i.e. give a registration a new colour, change legend title etc.) by using the properties view.

Requirements: In order to use the programme, you require an administrative or sub-user access for Brunata's WebMon system. The application can be installed from most Internet browsers, which have Java 1 version 6 and will be installed as a regular programme onto the client computer. A computer with a processor of minimum 1GHz and 512MB RAM is recommended, as well as a screen capable of showing a resolution of 1024x768 or more. A good broadband connection will also enrich the user experience as the programme downloads data over the Internet from Brunata's website. The application has been tested on Microsoft Windows 2000/XP/Vista and the browsers Microsoft Internet Explorer version 6 and 7, as well as Mozilla Firefox version 1 and 2.

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Reading and report products

Brunata WebMon

WebMon, which is a part of the BrunataNet system, gives you an overview of the consumption. WebMon is a web-based programme for presentation of data, which are read remotely. The browser-based software enables you to view and print the information available in the BrunataNet system. Connected to a building's installation with meters, WebMon can present all the gathered data.

In principle, everyone can be given access to data, but as the requirements differ, the system is divided into two different levels:

- I. Administrators (managers, caretakers etc.), who need an overview of the entire meter portfolio in the building and want to follow the total consumption of the building.
- II. Residents and users, who need access to parts of the system in order to monitor their own consumption and perhaps relate it to consumption of a similar apartment.

Brunata WebMon Visual

Please, see pages 2-4 of this brochure.

Brunata WebMon Visual Mobile

In connection with field work, a handy case is provided with the necessary equipment for logging data, which are sent via the GSM network to Brunata's database and presented via the internet in WebMon Visual.

The mobile laboratory is based on the Brunata Futura+ meter family with radio transmitter for logging data from heat cost allocators, temperature loggers and humidity meters.

Brunata DriveBy

Today, most heat cost allocators are read manually by a visiting meter reader. This method usually requires the resident to be at home at the time of the visit. To avoid inconvenience Brunata has developed a solution, which is flexible, mobile and meets the requirements at a very reasonable price. The solution is wireless and simple.

Brunata Visit

A majority of meters are still being read by Brunata service employees visiting the individual consumers. Brunata's employee carries an electronic hand terminal, which is used to read all types of meter.

Brunata WebArchive

WebArchive is a web-based archive containing heating bills and lists of how the consumption is distributed as a fair, consumption-dependent share of the total heating costs of the building. The information is saved for back years.

Do you utilise your resources sufficiently?

Brunata can help you to check the energy efficiency!

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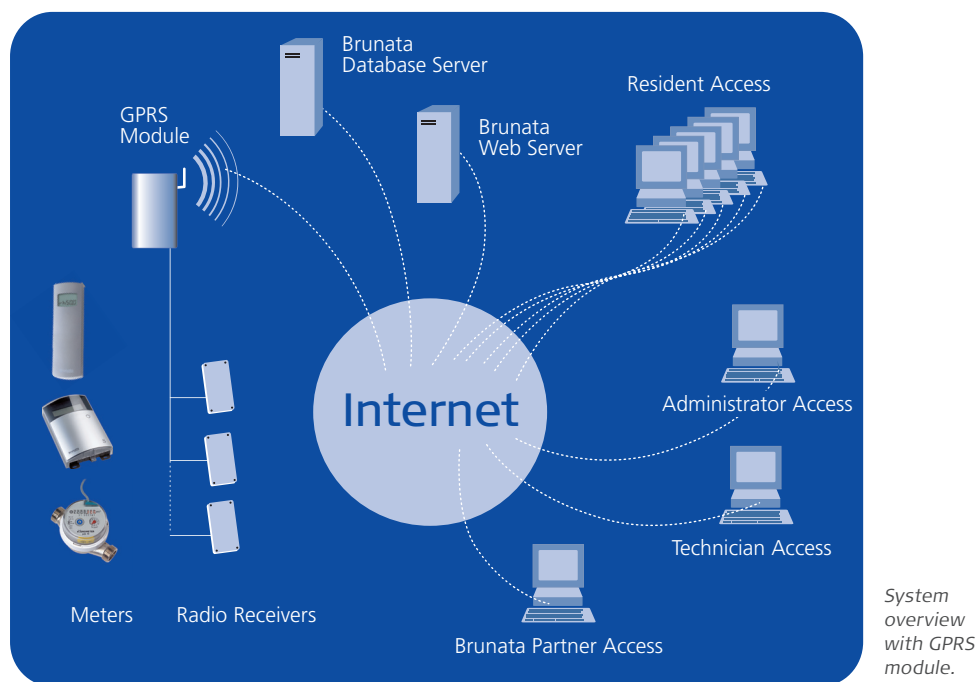
BrunataNet

BrunataNet is the collective name for Brunata's remote reading systems, which consist of two standard systems: A partially cabled system and a purely radio-based system. They are both designed to meet the various requirements in both small and large buildings. The solution is therefore tailored to the individual building. With WebMon, WebMon Visual and WebMon Visual Mobile BrunataNet constitutes a complete remote reading system for collecting meter data and presenting them to the interested parties.

BrunataNet ensures accurate and secure transfer of meter data from consumption meters to Brunata's Oracle server. Selected data can be accessed here and used for e.g. allocation accounts or WebMon presentation.

System description

All consumption meters, such as humidity, water, energy, electricity and gas meters, can be connected to the system provided they have pulse output. Heat cost allocators from Brunata are read directly. Meter data are radio transmitted wirelessly from the meters to strategically placed receivers. In a partially cabled system, the information is transferred via a RS485 network to a centrally placed controller box or GPRS module. Depending on the circumstances, the controller box is connected to the internet, GSM or an accessible telephone socket. Data are transferred through these to Brunata's database server.



Brunata

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Brunata a/s is a Danish owned company. We have more than 90 years of experience in developing and manufacturing heat cost allocators and cost billing. As overall supplier in energy metering, we constantly pursue high quality and efficiency in service, technical solutions, fair and precise measurements.