WEBfactory

Your number one for web-based process visualisation
Visualisation, control, monitoring and analysis

Machines and other systems can be operated economically only if all processes involved are monitored and evaluated in a comprehensive manner using modern, online-based software solutions. However, many of the SCADA/HMI solutions which are on offer for this purpose are proprietary applications and therefore often result in high follow-up costs for installation and maintenance. If you only want to pay for what you actually need, then our WEBfactory 2006 web-based visualisation software is exactly the solution you have been looking for.

Thanks to its modular structure, our sector-neutral visualisation software can easily be integrated into your IT environment. Standard interfaces ensure that it works together in harmony with all existing control and software solutions. All process data are depicted and analysed online using a straightforward, web-based user interface. You can view this user interface using any browser, regardless of where you are in the world, and on a wide range of different devices.

As a result, you can keep constant track of your systems and machines wherever you happen to be at the time. This enables you to make quick decisions which help to increase your productivity and system availability.
A summary of the advantages offered by WEBfactory 2006:

- **100% Internet-capable and no additional installation costs**
  All applications run without modifications on the Internet. They do not need to be installed on the display devices in any way and require no changes to your existing IT infrastructure (firewall, router etc.)

- **100% ActiveX-free**
  ActiveX controls are regarded as potentially unsafe. Indeed, security settings often prevent them being used. WEBfactory 2006 uses no ActiveX components whatsoever and therefore offers a high level of application security

- **Available for many operating systems and browsers**
  WEBfactory 2006 runs on the Microsoft Windows operating systems, Apple’s Mac OS and Linux. For display purposes, it supports the Internet Explorer, Firefox and Safari browsers

- **Automatic adjustment to screen resolution**
  WEBfactory 2006 allows you to produce your visualisations irrespective of the screen resolutions used by your customers. WEBfactory 2006 works entirely on the basis of vectors and automatically adjusts to the required screen resolution with no loss of quality

- **Sector-specific symbol libraries**
  Thanks to the extensive, sector-specific WEBfactory 2006 symbol libraries, you can come up with professional designs and animations for your visualisation pages in no time at all. You are completely at liberty to adjust the available controls and to pool them together in your own libraries

- **Reusable templates**
  Animated, cross-project WEBfactory 2006 templates can be compiled in libraries and immediately reused, expanded or adapted when you are working on future projects

- **Microsoft SQL Server 2008 database**
  WEBfactory 2006 is now supplied with the Microsoft SQL Server 2008 Express database. It supports the enhanced reporting and evaluation options which the Microsoft SQL Server 2008 offers

- **Straightforward transferral of data from CAD systems**
  WEBfactory 2006 allows you to import virtually all graphic formats. As a result, it is possible to transfer drawings which were produced using CAD systems such as AutoCAD or graphic editors such as Adobe Illustrator with no loss of information. All graphic objects are converted into the XAML format and can then be directly animated using WEBfactory 2006. 3D visualisations are also possible

- **No run-time licence costs**
  WEBfactory 2006 Professional is supplied along with a development licence which allows you to set up as many projects as you like for your customers without you having to pay any additional run-time licence costs
WEBfactory 2006 offers you the following functions and tools:

- **WEBfactory 2006 Studio**
  Allows you to set up the project database, connect the database to the relevant control system, define the process signals and parameterise the reporting and archiving system

- **WEBfactory 2006 Graphik Designer**
  Allows you to design professional, up-to-the-minute visualisation pages based on HTML, XML and XAML

- **Exchanging of data with lower-level control systems**
  Via either OPC DA/XML/UA or integrated interfaces

- **Rapid and secure transferral of data**
  With an optimised, entirely event-controlled transaction algorithm

- **Multi-level user management**
  Allows you to set up highly modular systems of access authorisation down to the signal level; all security standards and encryption technologies are supported

- **Comprehensive alarm management**
  Critical process events can be parameterised, prioritised and filtered in order to produce operating or alarm reports which must then be acknowledged either automatically or manually

- **Seamless recording and evaluation of data**
  Process-relevant data are seamlessly saved in the SQL database. This takes place virtually in real time and over an individually definable time period, ensuring that the data can subsequently be evaluated in detail

- **Online language switching**
  Visualisation projects can be set up in all Unicode languages and these languages can be switched online during ongoing operations

- **WEBfactory 2006 Activity Analyzer**
  Provides an online view of all activities being performed by WEBfactory 2006 as part of ongoing operations, thus making it a valuable aid both during commissioning and routine operations

- **WEBfactory 2006 Test Center**
  Allows you to test and simulate complete projects without an SPS control system being connected
Take advantage of **special solutions** for **special requirements**!

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The **WEBfactory 2006 add-ons available provide a wide range of additional features and can be combined freely depending on the specific requirements of a project:**

| **WEBfactory 2006 Manufacturing Intelligence** |
| Take advantage of intelligently evaluated and prepared production data and make your systems transparent from a process and economic point of view |
| **WEBfactory 2006 Cluster**                   |
| Servers running in parallel ensure that operations are not affected by process interruptions should important system components fail |
| **WEBfactory 2006 MessengerPro**              |
| Alarm management for the transmission of fault messages via SMS, e-mail and voicemail, escalation management, shift and personnel management |
| **WEBfactory 2006 MaintenancePro**            |
| Timely, need-based maintenance thanks to automatic monitoring of the system status, individual maintenance plans |
| **WEBfactory 2006 SchedulerPro**              |
| Straightforward management of automatic switching procedures and complex switching programmes |
| **WEBfactory 2006 ScenarioManagerPro**        |
| Calendar-controlled execution of complete switching scenarios with teach-in function, a wide range of parameterisation options and a convenient user interface |
| **WEBfactory 2006 M260**                      |
| Report generator for displaying balanced and compressed data in accordance with the requirements of the ATV-DVWK M260 norm |
| **WEBfactory 2006 Review**                    |
| Recorder which seamlessly records process data and can play these data back within a process image at a later point in time |
WEBfactory 2006 Manufacturing Intelligence
detailed evaluations increase the productivity of your machines and systems

Large quantities of data are generated during the production process. These data are often saved without being evaluated in spite of the fact that they can indicate weaknesses and therefore areas where there is room for improvement. WEBfactory 2006 Manufacturing Intelligence provides you with transparent processes by automatically and seamlessly saving all information in a data warehouse. These data are then intelligently evaluated and can be presented in a meaningful manner. You can use the key data collected to come up with precise action plans and increase your productivity as a result.

The unique features of WEBfactory 2006 Manufacturing Intelligence:

- Straightforward configuration (via a browser-based user interface) of individual analyses based on freely parameterisable influencing variables
- Precise evaluation of both past and ongoing processes
- Generates multidimensional analyses such as economic-viability calculations for current production
- Numerous graphical presentation options
- Continued use of recorded data for precise cost-performance analyses or other calculations
WEBfactory 2006 Cluster

redundant server structures ensure trouble-free operations

There are few things worse than seeing your entire production process grind to a halt simply because a system component has failed. In certain sectors of industry, standstills of this type can cause losses running into the millions. WEBfactory 2006 Cluster therefore checks to see whether your server applications, communication channels and sub-modules within the overall system are operating correctly. In the event of a fault, a switchover to another server running in parallel immediately takes place in order to maintain the availability of your applications.

WEBfactory 2006 Cluster offers the following impressive functions:

- Straightforward, dialogue-based setting up of the cluster environment
- No duplicate hardware as existing resources are used wherever possible
- Uninterrupted production thanks to the "hot stand-by" feature and immediate, automatic switching from the primary to the backup server in the event of a fault
- Parallel storage of data on the primary and backup server as well as automatic synchronisation between the two servers
- Convenient management of redundant systems via a web front-end
WEBfactory 2006 MessengerPro
minimise standstills by reacting quickly to faults

With WEBfactory 2006 MessengerPro, operating messages as well as details of faults and alarms are forwarded to contingency staff via mobile telephone/landline, SMS, e-mail or fax as soon as they occur. Using an additional engine, the alarm can also be output in the form of a voice message given in the appropriate national language. The alarm system even takes into account absences through illness, holidays and changes to shifts. This is because the module can be connected via standard interfaces to personnel and ERP systems.

WEBfactory 2006 MessengerPro offers the following unique benefits:

- Direct, rapid and reliable notification of the servicing staff responsible
- Automatic escalation management with confirmation of receipt; the next member of staff in the reporting chain is automatically informed if no reply is received
- Convenient management of staff and contingency plans, with the option of compiling plans for various divisions to form an alarm group
- Changes to contingency plans are immediately and automatically adjusted to the run-time
- Documentation, evaluation and statistical functions provide an overview of the efficiency of measures taken as well as the frequency and cause of the faults

WEBfactory 2006 MaintenancePro
need-based maintenance reduces overall maintenance costs

The maintenance intervals for machines and systems are generally based upon the information provided by manufacturers or one’s own experience. However, numerous factors such as downtimes or periods of increased production are not taken into account. In view of this fact, the WEBfactory 2006 MaintenancePro software was developed as a way of allowing need-based maintenance. It achieves this by collecting actual operating and wear information from the control system via an online connection. It then compares this information with the reference values provided by the manufacturers. If the corresponding value is exceeded, maintenance staff are automatically notified.

WEBfactory 2006 MaintenancePro offers the following impressive features:

- All outstanding and completed maintenance work can be displayed for a particular day, week or month
- Need-based, timely maintenance thanks to continuous monitoring of the system status
- Automatic reporting of maintenance needs including the provision of any necessary maintenance information such as handbooks and other documentation
- A colour scheme shows the urgency of any maintenance work as well as the maintenance status within the system visualisation
- Completely paperless documentation of maintenance work
WEBfactory 2006 SchedulerPro
automated switching procedures relieve you of routine work

Like many machines and systems, building-management technology is characterised by numerous heterogeneous systems such as lighting, heating and ventilation. These all need to be switched on and off as well as controlled in accordance with specified requirements. WEBfactory 2006 SchedulerPro enables you to automate the switching procedures for individual days, weeks, months or even years. The corresponding switching programmes can be adjusted and monitored via a standardised web user interface wherever you happen to be at the time. This relieves your staff of routine activities.

WEBfactory 2006 SchedulerPro offers you the following benefits:
- Extensive planning tools make it easy for you to set up, plan and manage the switching programmes
- All switching programmes are clearly visualised down to the process level
- Exceptions can be taken into account through alternative programmes
- A number of programmes can be combined to form templates which can be reused for similar switching procedures
- The software can easily be connected to existing systems via open interfaces

WEBfactory 2006 ScenarioManagerPro
ensures the same settings at all times

The same prescribed conditions have to be met in a variety of situations. This is especially true when it comes to controlling the lighting in hotels, museums, training centres and even in factory buildings. Via a convenient user interface in teach-in mode, WEBfactory 2006 ScenarioManagerPro allows you to read back actual values relating to entire parts of systems and then save these values as the new desired values in a scenario. All planned switching scenarios are executed on a calendar-controlled basis and are clearly visualised. At the same time, the system’s recording feature documents any changes made to the programmes.

A summary of the features offered by WEBfactory 2006 ScenarioManagerPro:
- You can manage the scenarios via a browser-based user interface
- The teach-in mode offers a convenient way of producing scenarios
- You may switch to saved scenarios
- The scenarios are automatically ended after a specified time
- The run-time for the scenarios can be planned in a calendar
WEBfactory 2006 Review allows you to seamlessly trace your processes for a period of up to 90 days. Using the remote control, the user can review at a later date the progression of an entire process. This is visualised on their PC as part of the overall process image. Just like with a film and a video recorder, the user is able to watch the process as it progresses again and again and is free to choose the playback speed.

WEBfactory 2006 Review offers the following features:
- Recording of planned process values (recorder function)
- Chronological review of the system status within the normal process images
- Using sliders, the historical system statuses can be shown instead of the current ones
- Operates in a similar manner to a CD / DVD player
- Playback speed can be set to various levels (2x, 3x, 4x, 8x, 16x and 32x)

The benefits of WEBfactory 2006 M260 at a glance:
- An extensive graph tool displays historical values in accordance with M260 requirements
- A configurable assessment and archiving system with background calculation of values [e.g. arithmetical values]
- Clear listing of fault reports which can be commented on and filtered according to various criteria
- You can easily produce your own report templates using Microsoft Excel
- You can produce a template from recurring reports and link this to a variable

WEBfactory 2006 M260
Reports in accordance with the ATV-DVWK M260 norm

WEBfactory 2006 M260 was developed specially for use in water and sewage treatment facilities. It monitors the current status of all process variables and calculates the necessary historical data for a given run-time. The information collected forms the basis for all subsequent assessment stages [archiving in accordance with ATV-DVWK M260]. Each stage created becomes available immediately and can then be used for further evaluation purposes. A sophisticated report generator which allows the depiction of assessed sets of data is available for documenting the values calculated. Naturally, this all takes place in accordance with ATV-DVWK M260 requirements.
**IEC-OPC server**

IEC 60870-5-104 support makes it easier to link in remote stations

In many supply and disposal operations, data must be exchanged between the control station and remote sub-systems. The IEC 60870-5-104 norm is often used as a standardised transmission protocol and is therefore supported by WEBfactory 2006 OPC server. Depending on your particular licence, the software can communicate with five, ten, 25 or more stations. The OPC server is optimised to cope with low bandwidths and relatively low transmission quality. It runs as a Windows service or application and can be managed from any client.

The IEC-OPC server offers the following functions:

- Straightforward, low-cost parameterisation of telecontrol systems
- Support for various communication channels such as radio or CDPD
- Addition of process information to diagnostics reports
- Process progression is visualised in detail, allowing you to identify and rectify malfunctions in good time

**Available standard OPC servers**

- Siemens S7/55
- Beckhoff IPC
- Beckhoff CX
- WAGO 750-841
- SAIA PCD
- SAIA S-BUS
- Phoenix ILC 350
WEBfactory 2006 Building
for intelligent, energy-efficient building management

If you are looking to control and monitor all devices and systems installed in your building via a standardised online user interface, our WEBfactory 2006 Building software package is exactly the right solution.

WEBfactory 2006 Building comprises the following software components
- WEBfactory 2006 for visualisation, control, monitoring and analysis

and the following add-ons
- WEBfactory 2006 MessengerPro for forwarding operating messages as well as details of faults and alarms to servicing staff via mobile telephone/land line, SMS, e-mail or fax as soon as they occur
- WEBfactory 2006 SchedulerPro for automatic switching procedures for individual days, weeks, months or even years
- OPC server for connecting SPS control systems

The web-based WEBfactory 2006 Building BMS software allows intelligent, energy-efficient building management, whether you are looking to control individual rooms on the basis of daylight or people’s presence or monitor entire building complexes in the optimum way.

Good reasons to choose WEBfactory 2006 Building:
- All applications run without modifications on the Internet. They do not need to be installed on the display devices in any way and require no changes to your existing IT infrastructure (firewall, router etc.)
- ActiveX controls are regarded as potentially unsafe. Indeed, security settings often prevent them being used. WEBFactory 2006 uses no ActiveX components whatsoever and therefore offers a high level of application security.
- WEBfactory 2006 runs on the Microsoft Windows operating systems, Apple’s Mac OS and Linux. For display purposes, it supports the Internet Explorer, Firefox and Safari browsers.
- WEBfactory 2006 allows you to produce your visualisations irrespective of the screen resolutions used by your customers. WEBFactory 2006 works entirely on the basis of vectors and automatically adjusts to the required screen resolution with no loss of quality.
- Minimal planning outlay thanks to extensive symbol libraries
- High-performance modules such as alarming, clock timer and OPC server are already integrated
- Long-term storage of data in an SQL database allows you to analyse building management processes – even in graphical form – at a later date
- Intelligent linking of different systems such as heating-control and room-reservation systems
WEBfactory 2006 Production
for monitoring machines and systems

WEBfactory 2006 Production is suitable for use in a very wide range of industrial areas. For example, it can be used to visualise entire production processes, manage high-bay or pallet warehouses or control cogeneration facilities and biomass power stations.

WEBfactory 2006 Production comprises the following software components

- WEBfactory 2006 for visualisation, control, monitoring and analysis
- WEBfactory 2006 MessengerPro for forwarding operating messages as well as details of faults and alarms to servicing staff via mobile telephone/land line, SMS, e-mail or fax as soon as they occur
- WEBfactory 2006 MaintenancePro for need-based maintenance: the actual operating and wear information is collected online and then compared with the reference values provided by the manufacturers
- OPC server for connecting SPS control systems

WEBfactory 2006 Production

The benefits of WEBfactory 2006 Production at a glance:

- All applications run without modifications on the Internet. They do not need to be installed on the display devices in any way and require no changes to your existing IT infrastructure (firewall, router etc.)
- ActiveX controls are regarded as potentially unsafe. Indeed, security settings often prevent them being used. WEBfactory 2006 uses no ActiveX components whatsoever and therefore offers a high level of application security.
- WEBfactory 2006 runs on the Microsoft Windows operating systems, Apple’s Mac OS and Linux. For display purposes, it supports the Internet Explorer, Firefox and Safari browsers.
- WEBfactory 2006 allows you to produce your visualisations irrespective of the screen resolutions used by your customers. WEBfactory 2006 works entirely on the basis of vectors and automatically adjusts to the required screen resolution with no loss of quality.
- Minimal planning outlay thanks to extensive symbol libraries
- All measured values, switching statuses and messages are displayed clearly and virtually in real time
- Details of critical process events in the form of operating and alarm reports are forwarded without delay to maintenance personnel
- All data are automatically recorded, allowing you to analyse production processes and identify areas where there is room for improvement
WEBaqua

The system source for your water and sewage treatment facilities

WEBaqua comprises the following software components

- WEBfactory 2006 for visualisation, control, monitoring and analysis

and the following add-ons

- WEBfactory 2006 M260 - for reporting in accordance with the ATV-DVWK M260 norm. The data for sewage treatment facilities are saved, compressed and evaluated in the prescribed form
- WEBfactory 2006 Review - seamlessly records all process data, allowing them to be played back and carefully analysed at a later date.

Experience a piece of software which provides a modern and future-proof way of controlling and monitoring your systems. A well-thought-out concept and the interaction of the individual components make WEBaqua an ideal, innovative solution for water and sewage treatment facilities.

Good reasons for you to choose WEBaqua:

- All applications run without modifications on the Internet. They do not need to be installed on the display devices in any way and require no changes to your existing IT infrastructure (firewall, router etc.)
- ActiveX controls are regarded as potentially unsafe. Indeed, security settings often prevent them being used. WEBfactory 2006 uses no ActiveX components whatsoever and therefore offers a high level of application security
- WEBfactory 2006 runs on the Microsoft Windows operating systems, Apple’s Mac OS and Linux. For display purposes, it supports the Internet Explorer, Firefox and Safari browsers
- WEBfactory 2006 allows you to produce your visualisations irrespective of the screen resolutions used by your customers. WEBfactory 2006 works entirely on the basis of vectors and automatically adjusts to the required screen resolution with no loss of quality
- Minimal planning outlay thanks to extensive symbol libraries
- Important values are depicted clearly, enabling you to make the right decisions quickly
- Important values are depicted clearly, enabling you to make the right decisions quickly
- Optimised communication channels ensure that members of staff can quickly gain an overview of the system status in the event of a fault and take appropriate corrective action
- Monthly reports for the Environmental Office are produced automatically
WEBfactory 2006 MobileMaintenance

Economical system maintenance and upkeep

Even if your systems are spread over a large area, WEBfactory 2006 MobileMaintenance is able to calculate the next maintenance date on the basis of current parameters such as temperature, operating time, rotational speed or switching cycle. As a result, maintenance cycles are increased and strict monitoring ensures that system performance is maintained.

The very nature of their job means that servicing staff typically have to move between locations and often receive unplanned maintenance requests. Industry-standard PDAs in conjunction with WEBfactory 2006 MobileMaintenance and its integrated GPS and indoor navigation system ensure that workers can carry out their duties without time delays by guiding them straight to the components which are in need of maintenance. At the maintenance site, the components within the system are recognised via RFID and the data are automatically read out. As a result, your staff rapidly gain an insight into the situation and time is saved when recording operating statuses. In contrast to its paper-based equivalent, online processing ensures that no incorrect data are gathered and rules out any mix-ups. This leads to a considerable increase in the availability of your systems.

Arguments in favour of WEBfactory 2006 MobileMaintenance:

- The fact that the system is directly linked to the ongoing process ensures that all important maintenance information is available there and then
- All measures taken are seamlessly recorded by the online processing system, making paper-based records a thing of the past
- The result of the maintenance work can be viewed immediately at the headquarters
- Thanks to the link to the company management level, changes to the contingency plans are taken into account automatically