



WARIOS[®] Software Suite

Digital transformation in operations management
Your workflows digitally implemented



We develop sophisticated software solutions with passion

Our software solutions and services, primarily designed for the commercial and technical management of facilities as well as public administration, enable you to optimize work processes while minimizing costs.

We are a team of passionate developers, consultants, and system integrators. Our interdisciplinary, complementary skills result in sophisticated software solutions. Our service and support consultants will help you solve your tasks quickly and efficiently using our effective tools.



Provider of municipal and industrial water management

WTE Betriebsgesellschaft mbH Hecklingen (WTEB), a subsidiary of WTE Wassertechnik GmbH Essen, is one of Germany's leading providers of municipal and industrial water management services in the field of plant operations.

Within the WTE Group, WTEB, headquartered in Hecklingen, Saxony-Anhalt, is responsible for the operational management of facilities both domestically and abroad. It plays a key role, particularly in project-specific BOOT models, in ensuring compliance with EU regulations, safeguarding public services, and promoting public health.

We are responsible for the operational management of water treatment facilities serving over 3.5 million people.





WARIOS® SOFTWARE PRODUCT

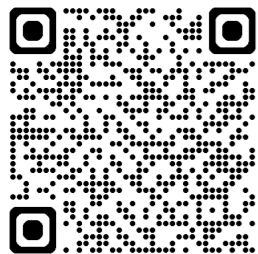


WARIOS® cmms

Our **Computerized Maintenance Management System** provides systematic support for planning, executing, and documenting your maintenance and repair activities. Take advantage of our more than 30 years of experience in plant operations!



- MAINTAIN
- INSPECT
- OPTIMISE



www.warios.de/cmms

- Get a complete history of all work performed and key equipment data. All information is easy to find at any time and provides you with a valuable basis for future decisions.
- Help new colleagues get up to speed while leveraging the experience of your entire team. Our software consolidates knowledge about your facility and makes it accessible to everyone. This fosters knowledge sharing and ensures that valuable expertise is preserved—for all generations.
- Get a clear overview of the condition of your equipment. Digitally recording all relevant information helps you identify maintenance needs early on and optimize the lifespan of your assets.
- Optimize your workflows by easily planning and assigning tasks. The software provides you with a clear overview of maintenance requirements and helps you allocate resources efficiently.
- Cut down on tedious paper-based documentation. Our software enables you to handle all tasks digitally, allowing you to focus more on the important aspects of your work.
- Empower your team to work flexibly with our intuitive app. Tasks can be managed on the go and recorded even in areas without an internet connection, which reduces response times and boosts efficiency.

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WARIOS® SOFTWARE PRODUCT



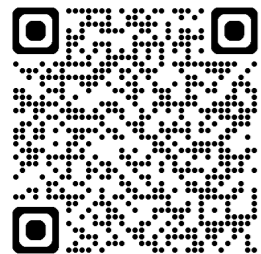
WARIOS®reports

Collect, document, and monitor operational data. Generate reports and share them with external parties. With WARIOS®reports, which can be integrated with various SCADA systems, you can efficiently consolidate all data and information from your facilities.



- **DATA ACQUISITION**
- **ROUTINE REPORTING**

- Connect WARIOS®reports to your SCADA system and benefit from automatic data collection and transfer into your reports.
- Create data entry forms for your employees or any number of reports, such as daily, weekly, monthly, and annual reports.
- Let WARIOS®reports handle the automated, routine generation of reports based on the current data and according to your specifications.
- Let our AI tools help you reduce your electricity consumption and prevent overloads.
- Our integrated data analysis tools for the early detection of system faults and unusual parameters in the wastewater stream help you identify and resolve issues in a timely manner.



www.warios.de/reports

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WARIOS® SOFTWARE PRODUCT



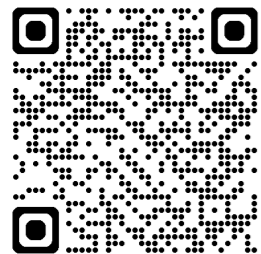
WARIOS®kanal

A sewer database with a difference—streamlined to the essentials—yet featuring all the relevant functions for operational management. That's WARIOS®kanal. Take advantage of our ISY-Bau-compliant database model and discover our special key features!



- **ISY-BAU COMPLIANT**
- **PLANNING**
- **GIS COUPLING**

- WARIOS®kanal provides a detailed record of all scanned optical inspections, including the video and image footage captured during the inspection.
- Use of a standardized database model in accordance with ISY-Bau specifications.
- Planning tools for flushing services, CCTV inspections, and electronic manhole inspection are available.
- Support for various integrations with geographic information systems.
- Unambiguous coordinate management with validation.
- Menu and toolbars replaced by a more modern ribbon bar.
- Automated import of ISY-Bau XML.



www.warios.de/kanal

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WARIOS® SOFTWARE PRODUCT



GBM®4

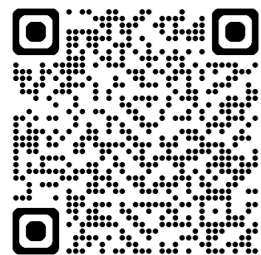
If you manage property-related fee and tax data, you've come to the right place. Our fee and tax management software allows you to capture and effectively analyze all property data.



DAILY UPDATES WITH GIS DATABASE



- We do not process your spatial reference data using just any off-the-shelf software, but rather in an application developed specifically for this purpose.
- Integrating GBM®4 with various geographic information systems enables seamless implementation into your processes.
- With GBM®4, you get a complete historical overview of all data records—updated daily.
- A wide range of printing tools and a comprehensive document management system enable continuous and traceable decision-making.
- Built for the future: Thanks to our client-server architecture, you can also use GBM®4 from your home office.



www.warios.de/gbm4

www.warios.de/gbm4



DATA SCIENCE PRODUCT

RETURN SLUDGE REGULATION MODULE

Our intelligent return sludge regulation module (RSRM) uses machine learning algorithms to proactively optimise plant operations. Based on inflow forecasts, the system detects heavy rainfall events approaching the treatment plant several hours in advance. The return sludge ratio is dynamically adjusted, preparing the aeration tank for load surges from the sewer network. This reduces shock loads in the secondary clarifier and keeps effluent loads low even under difficult conditions. The solution integrates seamlessly into existing process control systems and actively supports operational staff with intelligent recommendations for action.

- The intelligent return sludge regulation uses machine learning and inflow forecasts covering several hours to adjust the return sludge ratio dynamically and proactively.
- This reduces hydraulic shock loads, particularly during rainfall events, and ensures stable effluent values even under flushing surges.
- The solution can be easily integrated into existing process control systems via an OPC interface and can be flexibly deployed for different plant sizes.
- The customised algorithm provides specific recommendations for action and enables configurable, fully automatic control of the return sludge ratio (e.g. threshold values, intervention times, RSV limits).
- Optional notifications automatically inform operational staff of relevant events and system interventions.

RSRM



DATA SCIENCE PRODUCT

EXCESS SLUDGE REGULATION

Our intelligent excess sludge regulation (ESRM) system enables predictive control of excess sludge during plant operation. By dynamically adjusting the excess sludge volume, particularly in response to temperature and operating conditions, energy consumption in the aeration process can be specifically optimised. The system provides daily forecasts and specific recommendations for action, including the option to automatically adjust excess sludge volumes. The solution actively supports operational staff, operates automatically following a one-off configuration, and integrates seamlessly into existing process control systems.

- Intelligent and automated control of excess sludge with daily forecasts and specific recommendations for optimal sludge removal.
- Reduction in energy consumption through dynamic adjustment of sludge age, particularly at higher temperatures (typically up to 10% savings on aeration possible in summer).
- Additional efficiency gains in digestion through increased concentration of the degradable fraction in the excess sludge.
- Easy integration into existing process control systems via an OPC interface, whilst ensuring high operational reliability.
- One-off configuration of all relevant parameters, followed by automated operation without additional effort.
- Optional notifications keep operating staff informed about relevant events and system interventions.

ESRM