

Advanced Systems. Proven Solutions.

High Performance Process Visualization

Converting Data to Knowledge

Today's treatment plant operators and administrators demand powerful yet cost effective solutions for their Human Machine Interface (HMI) graphics displays. However, the ability to monitor and control the treatment process is only one of several key requirements, particularly when the ultimate goal is plant optimization. The graphic displays of the future must provide plant operators with sophisticated predictive means to achieve energy, chemical and labor cost savings.

MR Systems pioneered the use of fully rendered 3-dimensional (3D) graphics displays for the water and wastewater industry. Today we are leading the movement toward the development of "High Performance Process Visualization" tools. These graphics and the vital information they depict provide plant operators with the essential tools they need to successfully monitor and control their treatment facilities and, more importantly, to improve and optimize operational efficiencies.

Forward reaching scalability of a process visualization system does not stop at the treatment plant gate. The successful control system integrator must be able to extend the solution beyond the local network of the treatment facility to encompass multiple treatment facilities, distribution systems, remote collection systems, and remote maintenance, administrative and laboratory locations. High performance process visualization is the art of representing both real time and historical data graphically in an engaging manner that provides ready access to process information and inspires plant personnel to operate their systems more effectively and efficiently.

3D process graphics accurately depict treatment processes throughout the treatment facility, making it easy for the staff to control an entire process, check equipment status, or manually control specific pieces of equipment. Abnormal conditions are designed to stand out clearly. Color and animation are used consistently and effectively to highlight process information and conditions. Optimally designed graphics show not only real time process values, but also where those values deviate from normally expected values.



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Influent Headworks Raw Water Aeration Secondary RAS Scum Pumps Effluent UV Historica





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High performance process visualization offers additional advantages such as:

- Improved operator situational awareness
- Enhanced process surveillance
- Better abnormal situation detection and response
- Reduced training time for new operators
- Interface to databases such as SCADA Historians, Hach WIMs, GIS systems, or maintenance databases for information analysis and predictive diagnostics

By concentrating all of our graphic development efforts in the water and wastewater arena, MR Systems has developed the most extensive collection of high resolution 3D objects available. Our symbol library, in combination with our in-depth knowledge of water and wastewater treatment processes, will significantly reduce the cost of graphics display development on your project. By integrating the functionality of 3D graphics with the interface to historical data we have truly achieved high performance process visualization. Best of all, these graphics displays can be easily modified by your SCADA technician.

Make everything as simple as possible, but not simpler. - Albert Einstein

Regardless of the brand of HMI application software you use, MR Systems provides application-independent graphic design and implementation.



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