


















Water Treatment Simulation and Online Disinfection Management (ODM)

Ensure safe drinking water, balance compliance with both DBP and microbial regulations and achieve cost savings with WatPro.

WatPro uses the EPA-developed CT approach to calculate chemical inactivation of Giardia and viruses while simultaneously estimating formation of DBPs. Using raw water quality parameters such as pH, TOC and SUVA, chemical dosages (e.g., alum, ferric chloride, lime, ammonia) and design and operating characteristics of process tanks, WatPro accurately simulates plant operation.

WatPro has a user-friendly interface that allows a schematic of the water treatment plant to be easily configured within minutes. Results can be viewed on-screen, printed or saved to electronic files for further processing.

Treatment Processes

 Raw Water Inflow	 Filtration	 Online Instrumentation
 Chemical Addition	 Granular Activated Carbon	 Clear Well
 Disinfection Addition	 Membrane	 Reservoir
 Flocculation	 Contact Tank	 Connection Point
 Settling Basin	 Ozonation	 Final Treated Water
 Channel	 Measurement	

Advanced Features

- SCADA system links for continuous system performance monitoring.
- Sensitivity analysis to evaluate the effects of chemical or process changes.
- ODM offers opportunity for real-time tracking of disinfection performance, alarm triggers and automated control of disinfectant concentrations.
- Site-specific calibratable chemical reaction rates (e.g. chlorine decay).
- User formatted reports.

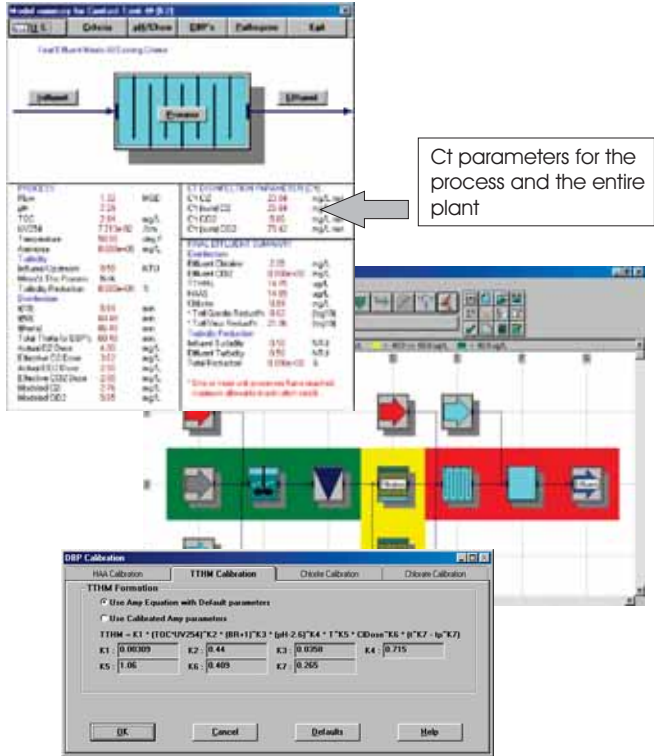


System Requirements

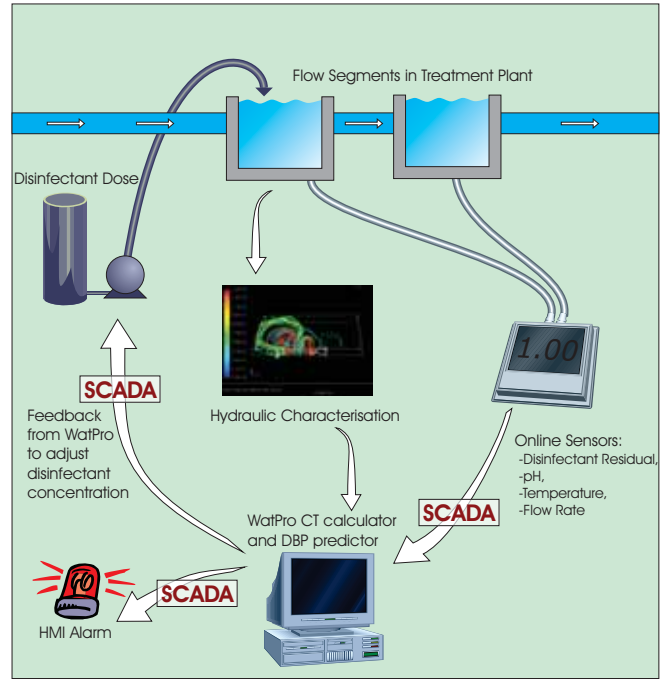
- Windows XP, Vista, or 7
- 512 MB of RAM or more
- 250 MB of free disk space

WatPro and inactivation of E. coli bacteria

WatPro can show whether pathogenic bacteria like E. coli 0157:H7 have been adequately inactivated in a water treatment plant. For an uninterrupted primary disinfectant dosage rate, WatPro tracks the inactivation of viruses and Giardia by disinfectant addition. Because fecal coliform bacteria are inactivated by disinfectants to a greater extent than viruses, the log reduction of bacteria like E. coli will match or exceed the reduction for viruses calculated by WatPro. The simulator also determines the Ct disinfection parameter at any location in the treatment plant.



A Complete Turnkey System: Hardware, Software, and Training



Typical Uses

- Minimize formation of DBPs (e.g. THMs, HAAs, chlorite, chlorate).
- Compare inactivation of viruses and Giardia by chlorine, ozone, chlorine dioxide and chloramine.
- Calculate Ct for any location in the treatment system.
- Optimize plant operation by allowing chemical addition points to be varied or by tank baffling.
- Estimate treated water quality for a proposed change in plant operation.
- A highly effective education and teaching tool.

Our other products:

GPS-X™

CAPDEL™
Works

SimuWorks™

TOXCHEM™

www.hydromantis.com

Hydromantis offers expert modelling services for treatment plant design and optimization and is the developer and owner of the industry's most popular modelling and simulation software including: GPS-X, SimuWorks, Toxchem, CapdelWorks and WatPro.