# GPS-X

Dynamic Wastewater Treatment Plant Simulation

GPS-X is the most advanced tool available for the mathematical modeling, simulation, optimization and management of wastewater treatment plants. The user-friendly drag and drop interface and comprehensive database of unit processes allows users to quickly and easily assemble a treatment plant model, enter characterization data, and run simulations.

Develop and optimize advanced control schemes, predict effluent quality under varying conditions, conduct planning and capacity analysis or offer sophisticated training and development programs with a dynamic model of your actual or proposed plant. GPS-X was the first commercially released dynamic wastewater treatment plant simulator and still remains the solution of choice today.
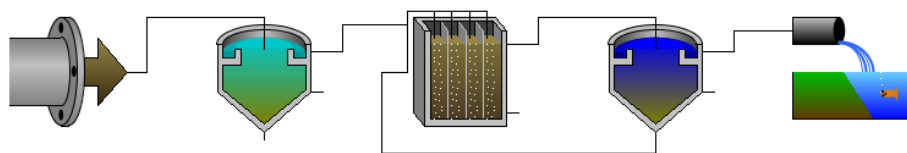
Advanced Features

- **Influent Advisor** - Validate the accuracy and consistency of your influent data prior to simulation

- **Quick Display Panel with easy data export** - An auto-summary of your key engineering parameters, updating in real-time, with simple one click export to Excel

- **Dynamic Simulations** - GPS-X offers the fastest dynamic solver in the industry allowing you to perform simulations in a fraction of the time it takes other tools.

- **New and Improved User Interface** is more intuitive and user-friendly while retaining the power to run even the most sophisticated simulations.

- **Extensive library** of unit process models provide users with tools to design and optimize the widest range of WWTPs including MBR, IFAS, UASB, denitrification filter, sludge pretreatment, anaerobic digester, and comprehensive full-plant biological models for advanced sidestream nutrient removal

Hydromantis
Environmental Software Solutions, Inc.

Expert Water & Wastewater Treatment Modeling Software & Services

Influent Advisor Tool
(for Influent Wastewater Characterization)

Quick Display Panels/Dashboards

Export Simulation Results Directly to MS-Excel

Unit Process Examples

IFAS/MBBR

Oxidation Ditch

Denit. Filter

MBR

UASB

SBR
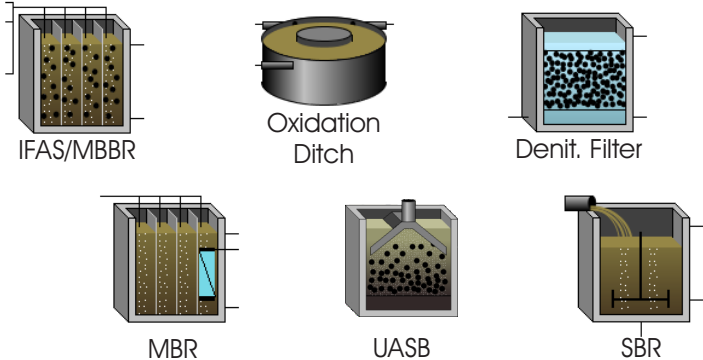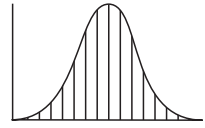
Monte Carlo Analysis

A robust Monte Carlo Analysis Tool allows users to evaluate plant performance when not all of the model inputs are well-known.
It brings the uncertainty of real life into their models.

Typical Uses

- **Optimization and Cost Saving Analysis** - Evaluate opportunities to improve control processes, reduce costs (energy, additives, etc.) and develop benchmarking and auditing statistics.

- **Planning and Capacity Analysis** - Design and test possible upgrades without costly consulting expenditures. What is our capacity? Can we postpone a costly upgrade and for how long?

- **Training and Education** - Educate and train your staff with a dynamic model of your plant. Offer troubleshooting and "what-if" exercises geared to the specifics of your facility as part of a comprehensive development program

- **Knowledge Capture** - Capture and document important process information held by key individuals in your plant and get everyone on the same page with regard to plant operation.

Our other products:

Toxchem™

CapdetWorks

WatPro

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

www.hydromantis.com