

What's NEW in

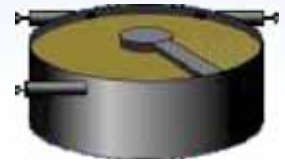
GPS-X™

6.3

New Model Features:

☑ Mantis 2 Model Updates

- global on/off switch for pH calculations
- incorporation of pH inhibition function in rate equations with a global on/off switch
- segregation of oxygen saturation and inhibition functions to better model the simultaneous nitrification-denitrification process
- use of $\text{NO}_x\text{-N}$ as a nutrient during $\text{NH}_3\text{-N}$ limited conditions
- free ammonia and free nitrous acid inhibition for ammonia-oxidizing and nitrite-oxidizing bacteria
- ammonia stripping
- distinction between aerobic, anoxic and anaerobic decay of biomass
- degradation of inert organics to better model long SRT systems



Continuous Flow Sequencing Reactor

☑ Continuous Flow Sequencing Reactor Model

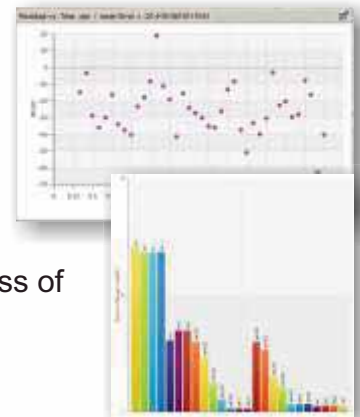
- model systems with sequencing aeration and/or rotating aeration bridges

☑ Simplified Biological Aerated Filter (BAF) Model

- new simplified model for any systems with media, aeration and filtration

☑ High-Rate Treatment Model

- empirical solids separation models for high-rate wet weather treatment



Interface and Output Enhancements:

☑ Statistical Analysis of Model Results

- automated evaluation of the model residuals and the model's goodness of fit (e.g. residuals vs. time, predicted vs. measured, mean square of residuals)

☑ Plant-Wide Output Graph

- bar graph of concentrations throughout the length of the treatment train

☑ Updates to Influent Advisor

- new display of important stoichiometric ratios such as TKN/COD and TP/COD

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