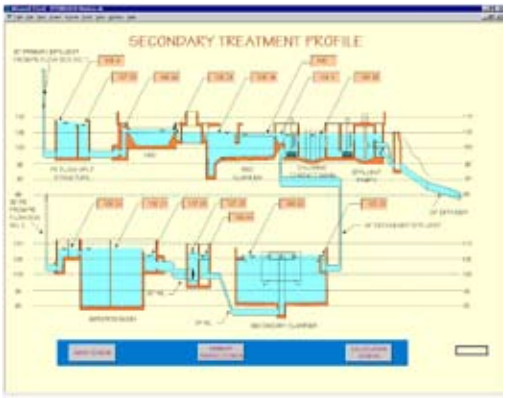
Hydraulix®

Desktop Simulation of Treatment Plant Hydraulics

Hydraulix® BY carollo
Engineers...Working Wonders With Water®

Purpose

Carollo Engineers provides consulting services for water and wastewater treatment plant hydraulic evaluations using an evaluation and modeling approach with a software tool to develop reports and recommendations. Hydraulix® produces rapid treatment plant hydraulic calculations representing a plant's hydraulic profile and provides easy evaluation of plant hydraulic performance, including identification of hydraulic bottlenecks, overflow conditions, and imbalances in flow splitting. What sets Hydraulix® apart from other hydraulic models is its integration of a sophisticated graphical user interface with an easy-to-use computational format. It can be customized around any treatment plant. The customized version of Hydraulix® can be used as an operational tool by plant staff to evaluate and optimize plant hydraulics at a desktop level.

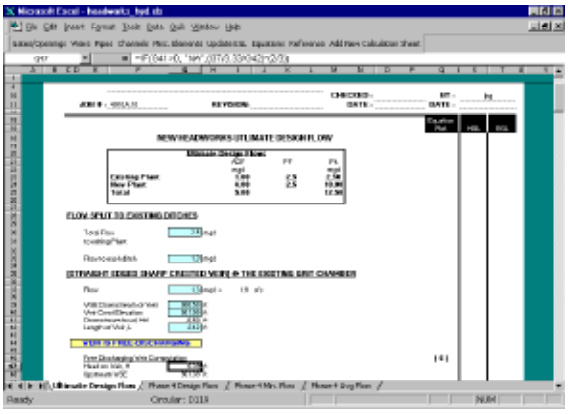


Features

- Includes customized graphical user interfaces that simulate the look of the actual treatment plant.
- "Click-and-configure" approach allows user to click treatment process units on and off to simulate actual plant configuration.
- Model incorporates plant-specific hydraulic characteristics, and is calibrated based on historical operational data.
- Allows user to analyze impact of different operational changes on plant hydraulics.
- Allows user to analyze hydraulic capacity for different configurations and to plan for different operational scenarios such as wet-weather operations.
- Allows user to investigate different types of remedial action for hydraulic problems such as changing the size or configuration of hydraulic elements or implementing hydraulic bypasses or diversions; i.e., change from plug flow to step feed.
- Pictorial format allows it to be used effectively even by nonexperts.

Application

The user selects the desired operating configuration by clicking on the treatment process icons, and inputting the desired operational parameters. Hydraulix® incorporates these selections and displays the resulting plant hydraulic profile. In the event these predicted conditions are not acceptable, the user can explore different remedial approaches by clicking on different operational icons.



"Dedicated to creative, responsive, quality solutions for those we serve."

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