WADISO Water Distribution System Analysis Software

The hydraulic network model is embedded in our own powerful Albion™ GIS platform.

The power of GIS can now be applied to the engineering model, allowing the modeller to directly harness GIS tools when creating and editing datasets.

Model lives in GIS

From a network modelling perspective, spatial correlation can be used to extract text, such as diameters from CAD or other GIS sources and apply it directly to elements of a hydraulic network model such as pipes.

Another example would be to select part of the model using a spatial query, then refine the selection using a SQL text query. Finally the resulting filtered dataset can be populated interactively with data. This works directly on the engineering model.

SQL queries applied to model

The more advanced modeller can create extensive selection or update queries using SQL, and see the effect immediately rendered in the GIS based model.

GIS themed views of model

A wide selection of predefined themes are available to render the model in the GIS, for example by diameter categories or flow velocities. These can be customized by the user or new ones can be created.

Tabular views of model

Model tables are dynamic, synchronized, fast and practically unlimited in size. The modeller can have multiple user customizable layouts with field groupings in colour.

Simplified model building

Wadiso simplifies the process of model building from a wide range of sources including as-built drawings, CAD plans, GIS data sources, scanned images, schematic layouts, tabular spreadsheets or even hand drawings. The process of adding model elements such as pipes, pumps, valves or tanks with the minimum number of clicks has been at the forefront of the new design to minimize repetitive tasks for the modeller.

All model operations are now also fully undo-able.

Interaction with web services

Vast amounts of information are available on the Internet. Accessing Internet based resources through web services, allows Wadiso to display background maps from sources like Google™, Mapbox™, Bing™ or OpenStreetMap™. In addition Street View is now integrated in the software.

Extensive model reporting system

A new SQL-based reporting system provides access to predefined reports. These reports can be customized by the user.

Click/Scan to learn more about Wadiso:

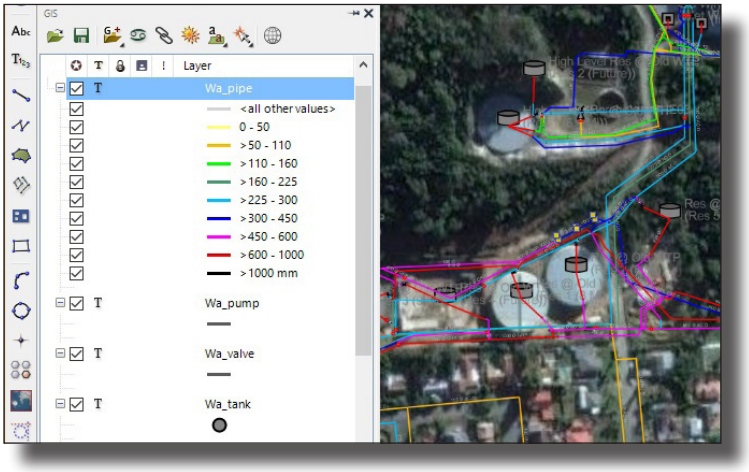
Wadiso Overview

We aim to simplify the network modelling and planning process during every step, by supporting demand forecasting and population, scenario management, network analysis, as well as future system planning.

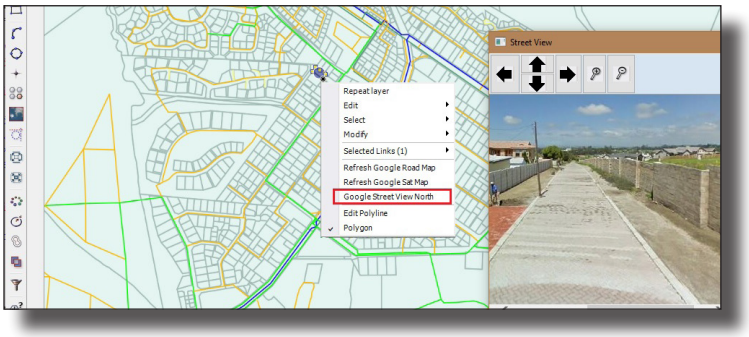
Key features of Wadiso

- Support for Google™ Maps imagery
- Support for embedded Google™ Street View
- Integrated hydraulic network modelling and design
- Demand forecasting and updating via Swift™
- Ideal for modelling very large systems
- Supports data storage in or data exchange with SQLite, Microsoft SQL Server, PostgreSQL and ArcGIS Server
- Support for both the Hazen-Williams and Darcy-Weisbach head-loss equations
- Wide range of hydraulic components supported such as pipes, pumps, system valves, nodes, tanks, reservoirs, etc.
- Simultaneously captures spatial and hydraulic network topology in a single model with addition of user-defined information
- Support for steady state analysis and extended period time simulation using the EPANET simulation engine
- Support for water network quality analysis such as water age, chemical trace and chemical concentration analyses using EPANET
- Pipe size optimization using tested Wadiso exhaustive enumeration algorithm
- Master planning system for hydraulic networks
- Support for a dynamic SCADA link to update model parameters from live data in support of Smart Models
- Result presentation available in GIS, graphs, SQL-based reports and hydraulic grade line profiles.

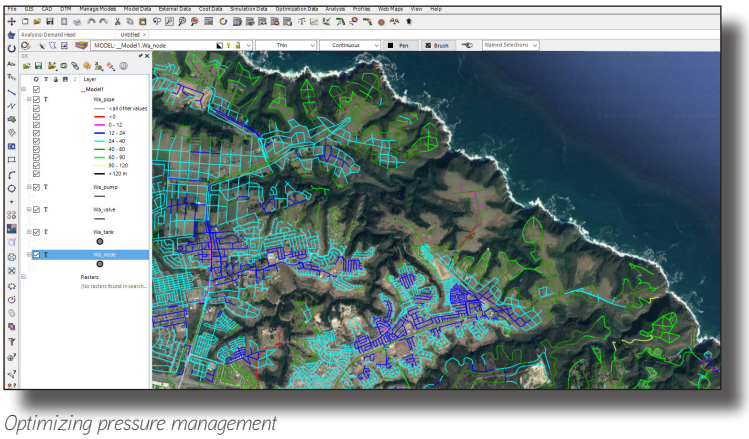
Watch videos on YouTube here:



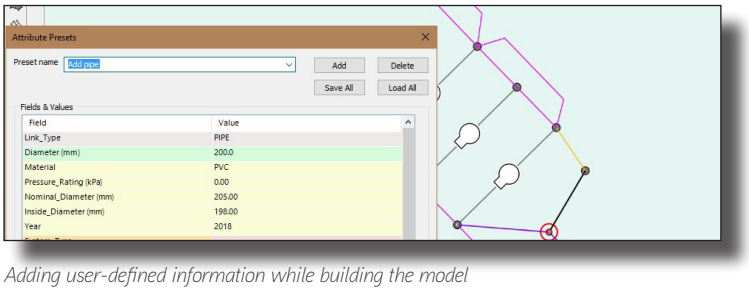
Model view with Google™ satellite background



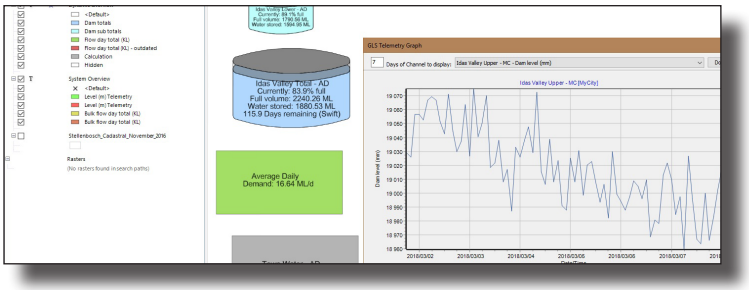
Model view with Google™ Street View window



Optimizing pressure management



Adding user-defined information while building the model



SCADA link supporting Smart Models

GLS Infrastructure planning

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