

# MIKE WATERNET ADVISOR

## Modelling and result presentation **through the web browser**

MIKE WaterNet Advisor is a **powerful and user-friendly web-based application** for displaying EPANET, MIKE1D, SWMM model layers, editing model data, setting up scenarios, as well as running and displaying model results. You can **access it using a web browser on any device**, such as a desktop or laptop (running on Microsoft Windows, Apple or other operating systems), and smartphones or tablets.

### SOFTWARE USAGE AND APPLICATIONS

Get answers at your fingertips with the MIKE WaterNet Advisor web application.

If you work with a water supply network, you may find these daily operational challenges familiar:

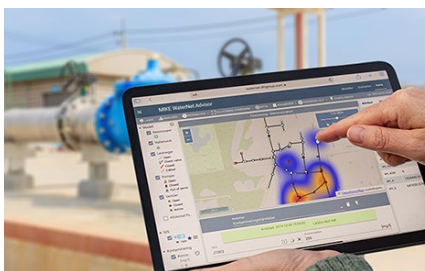
- Where is the source of the leaking pipe?
- Can the network provide sufficient pressure for a new housing area?
- How much water can a particular fire hydrant supply?

If you work with collection systems, you may find these daily operational challenges familiar:

- Where may I experience flooding in the network?
- Are there any bottlenecks or insufficient capacity in the network?
- In the event of pump failure, where in the system will I experience sewer overflows?

These challenges – and many more – often need a quick response. What if you could have the information you need at your fingertips wherever you are?

With MIKE WaterNet Advisor, you can access your hydraulic models and get immediate answers with just a few clicks on your tablet, smartphone, laptop or desktop.



### APPLICATIONS

#### WATER DISTRIBUTION

Typical applications within water distribution are:

- Master planning and system rehabilitation
- Pressure optimisation
- Leakage analysis and reduction
- Fire flow analysis
- Shut-down planning
- Flushing programmes
- Contaminant event analysis
- Water quality risk analysis
- Multi-source trace analysis
- Water age analysis
- Online analysis based on SCADA data

#### COLLECTION SYSTEMS

Typical applications within collection systems are:

- Master planning and system rehabilitation
- Optimise network capacity and maintenance work
- Wet weather management planning to reduce SSOs/CSOs
- Design and optimise real-time controls
- Manage rainfall dependent inflow and infiltration (RDI) & LTS
- Control of sulphide gas (H<sub>2</sub>S) formation
- Assessments of stormwater quality and green solutions

### FEATURES

Many water utility operators or emergency response teams depend on experts to get data from the hydraulic models of the water network. This process slows down decision-making, delays tasks and impacts your bottom line.

Imagine a web application that enables you to make better and faster decisions – and which doesn't require any special knowledge to operate. Here are its core features:

- Instantly access your hydraulic models
- No special expertise required
- Work anywhere
- Online control

MIKE WaterNet Advisor allows you to work with any MIKE+ Water Distribution (EPANET) or MIKE+ Collection Systems (MIKE1D, SWMM) or EPANET, SWMM model within Internet Explorer.

It is possible to open any MIKE+ model database, display the contents of the model using predefined layers and edit the model data using any of edit tools running on the simulations based on:

- EPANET
- MIKE1D
- SWMM

You can also load the simulation results and display them in the Map view, create thematic maps, display time series, browse and animate the results in accordance with the focus of the application.



## WATER DISTRIBUTION

The Water Distribution modules are based on DHI extensions to the worldwide standard EPANET engine.

### MODEL MANAGEMENT

- Create, edit and delete a model
- Register any MIKE+ EPANET or EPANET file
- Register GIS layers
- Ability to share your model with other users

### SCENARIO MANAGEMENT

- Create, edit and delete a scenario
- Share the scenario with other users or keep it private

### HYDRAULIC MODELLING - EPANET

- Editing (tanks, reservoirs, pipes, pumps, valves, node demands)
- Hydraulic analysis (steady state, extended period analysis)
- Fire flow analysis
- Network capacity analysis
- Water age analysis
- Multi-source trace analysis
- Contaminant event analysis
- Flow trace analysis
- Online analysis (may require additional software)

### RESULTS PRESENTATION

- Map views
- Information browser
- Time series
- Scatter plots
- Profile plots
- Animations

### WATER DISTRIBUTION ONLINE

The Water Distribution Online module allows you to develop a Digital Twin model. This data management and integration system can receive real time SCADA data and perform online analysis of system status and response.

## COLLECTON SYSTEMS

The collection system modules are based on US-EPA SWMM engine or DHI's multi-core MIKE 1D engine.

### MODEL MANAGEMENT

- Create, edit and delete a model
- Register any MIKE+ MIKE1D file
- Register any MIKE+ SWMM or SWMM file
- Register GIS layers
- Share the model with other users or keep it private

### SCENARIO MANAGEMENT

- Create, edit and delete a scenario
- Share the scenario with other users or keep it private

### HYDRAULIC MODELLING - MIKE1D

- Editing (manholes, basins, soakaways, pipes, pumps, valves, orifices, weirs and gates, wastewater loads)
- Hydrology and Hydraulic analysis
- Flow trace analysis

### RESULTS PRESENTATION

- Map views
- Information browser
- Time series
- Scatter plots
- Profile plots
- Animations

## BENEFITS

### SERVER HOSTING

- The application can be hosted by Microsoft Azure or other Cloud service providers
- The application can be hosted on-premise
- There is no need for any software installation on end-user devices as the application runs from within the web browser

### MODEL SHARING

- Hydraulic models are shared by multiple users across the organisation
- Models can be accessed by multiple users at the same time
- Various users roles (administrator, modeller, reviewer, manager, etc) are available

### EASY-TO-USE

- Use case-driven interface
- The user selects a predefined task from the list and the application displays all relevant entries on a single screen
- No special expertise required when the application is used for information browsing
- You can access it using a web browser on any device, such as a desktop or laptop (running on Microsoft Windows, Apple or other operating systems), and smartphones or tablets