MIKE OPERATIONS

Transform your data, models and knowledge into **better operational decisions**

MIKE OPERATIONS empowers water professionals with technology for building data management systems, water forecast systems and ultimately establish **real-time operational control systems that connect to the internet-of-things** and control pumps, weirs, gates and dams in the physical system.

EMPOWERING WATER PROFESSIONALS

Whether working with water in river basins, cities or marine environments, water professionals are facing the same difficulties when dealing with diverse data sources and a variety of different modelling applications and outputs.

MIKE OPERATIONS is a generalised software product designed to build manual or automated workflows for data acquisition, data validation, model execution and information publishing.

It supports organisations in building the capacity needed for configuring and maintaining sophisticated information systems that make essential information readily available to operators and decision-makers.

BENEFITS

Water professionals use MIKE OPERATIONS to deal with a complex range of water challenges. Key benefits include:

INCREASED EFFICIENCY

- Do more with less and get the full benefit of data and models
- Improve operations with existing knowledge and infrastructure
- Provide better service to partners, clients, stakeholders and to the public

REDUCED COSTS

- Develop less labour intensive processes
- Reduce operational costs (energy, chemicals, downtime)
- Make better long term investments
- Reduce emergency damages

REGULATORY COMPLIANCE

- Emergencies response and public safety
- Environmental Impact Assessments
- Managing Combined Sewer Overflows (CSOs)
- Understand risks and avoid penalties

APPLICATIONS

WATER RESOURCES AND RIVER BASINS

Water authorities use MIKE OPERATIONS as a hydrological data management system that provides access to quality assured data for water management purposes.

Basin managers use MIKE OPERATIONS to promote transparency and objectivity in water resources management and planning decisions.

River operators and emergency managers use MIKE OPERATIONS to collect and process real-time data and to build flood forecasting system or optimise river operations.

WATER UTILITIES

Water utilities use MIKE OPERATIONS to:

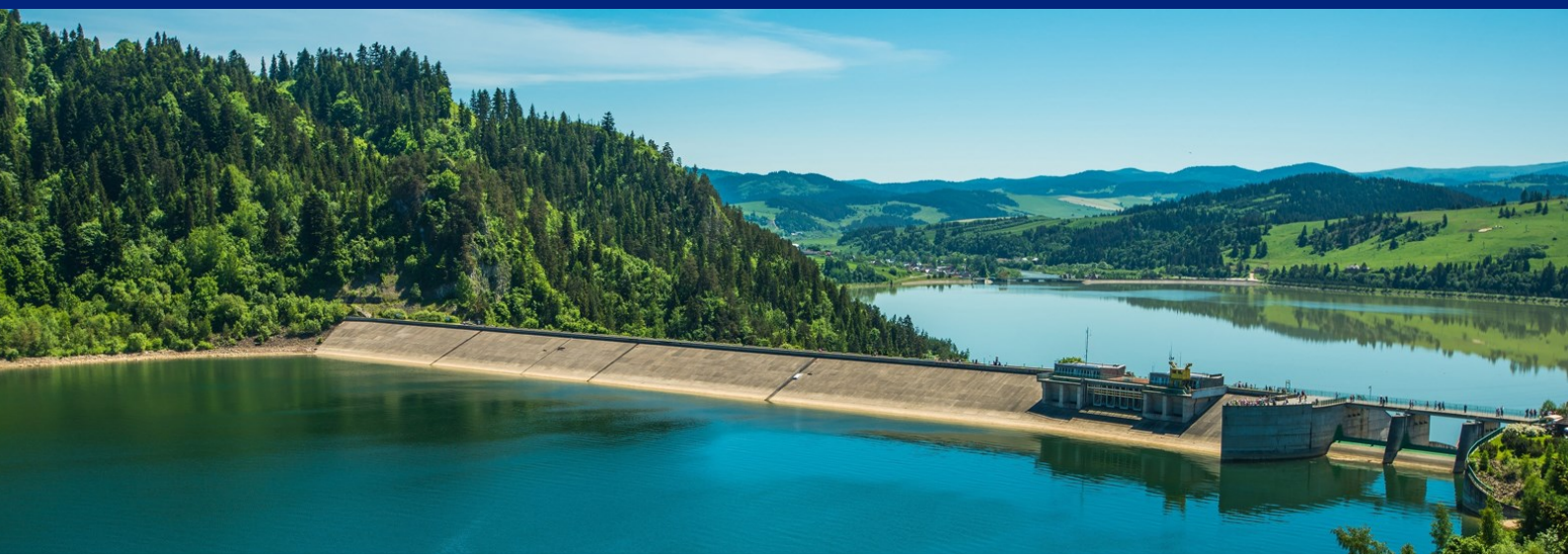
- Establish real-time data management including data and compliance reporting
- Establish real-time forecast systems and for control and optimisation of storm- and wastewater collection systems
- Monitor leaking water distribution systems and minimise non-revenue-water

HARBOUR AUTHORITIES AND MARINE OPERATORS

Marine operators use MIKE OPERATIONS to create data management systems providing metocean data.

Oil companies and dredging companies use MIKE OPERATIONS to make environmental risk and impact assessments for operational planning.

Emergency management authorities use MIKE OPERATIONS to create forecast systems targeting coastal flooding, pollution spills and bathing water quality.



MODULES

DATA AND TOOLS

The Data module manages the basic storage and processing of data. The functionality is organised in a number of components, including:

- Time series, which includes a variety of tools for data processing and quality assurance
- GIS tools for analysis and processing of vector and raster data
- Document management system (images, MS Word, PDF and so on)
- Spreadsheet component for data reporting and spreadsheet calculations
- Python Scripting with editor and debugger
- Indicators calculated based on field data or model outputs
- Report generator for automated reporting with MS Word

SCENARIO

Extends the Data module with scenario management functionality. It provides a number of model adapters that links MIKE OPERATIONS to a particular model and enables scenario comparison, model optimisation, sensitivity analysis, linking multiple models in one model as well as Multi Criteria Analysis and Cost Benefit Analysis.

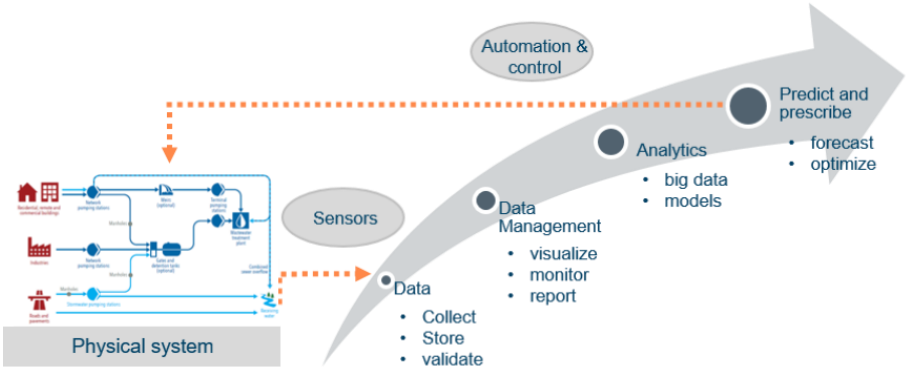
REALTIME

Extends the Data module with built-in job tasks and workflow designer for automation of data import, data processing and model execution tasks.

FEATURES

MIKE OPERATIONS combines the strengths of an out-of-the-box configurable software product with the flexibility of an open software development framework. Key features include:

- Configurable desktop and web application designed to provide necessary information to system operators and decision makers
- An intuitive no-code WebApp configuration environment to share data and results, manage your real-time system and run what-if scenarios to assess uncertainty more easily
- Workbench application with user interface designed for effective and system configuration and maintenance
- Tools for interfacing to a variety of data formats and data sources
- Data storage in relational database.
- Expandable through built-in Python scripting component
- API for developing custom applications
- Multi-user with different user access levels and associated privileges
- Integration with DHI's MIKE Cloud platform
- MIKE+ adapter (River, Collection System and Overland) to enable the use of MIKE+ models in real-time



DIMS.CORE

DIMS.CORE complements MIKE OPERATIONS by providing advanced time series management capabilities.

DIMS.CORE can link to all data sources, combine multiple data sources into one platform, as well as share and provide data to users anywhere.

It is designed for building solutions that transform data into information for the operation and management of utilities.

DIMS.CORE is used for linking the Supervisory Control and Data Acquisition (SCADA) system data and models in projects that implement monitoring and/or model-based real-time control systems, and it comes with flexible and automated reporting capabilities.