Release Notes 2024 MIKE HYDRO Basin

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Introduction

Welcome to MIKE HYDRO Basin 2024 Update 1

In this Release Note, you will find information about new features of MIKE HYDRO Basin, and what you need to know in order to install and get started with Release 2024.

Featuring a map based and easy-to-use Graphical User Interface, MIKE HYDRO Basin is a modelling package for water resources planning and management in river basins.

System requirements

Operating systems

Fully supported Windows operating systems *	Windows 11 Pro, version 23H2 (64 bit) Windows 10 Pro, version 22H2 (64 bit) Windows Server 2022, version 21H2 Windows Server 2019 Standard, version 1809
Non-supported but partially tested operating systems **	Windows Server 2016 Standard, version 1607

* Fully supported operating systems are systems that have been tested in accordance with MIKE's Quality Assurance procedures and where warranty and software maintenance agreement conditions apply.

** Non-supported but partially tested operating systems are systems, which are not officially supported by the MIKE software products. These operating systems have only undergone very limited testing for the purpose of MIKE software, but the software and key features are likely to work. Installation of MIKE software on a non-supported operating system is done so at the user's own risk. The MIKE software warranty and software maintenance agreement conditions do not apply for unsupported operating systems and DHI is under no obligation to provide assistance or troubleshooting for cases where the software is being used on a non-supported operating system.

Please note that when running a fully supported operating system as a 'guest operating system' on a virtualization platform, it is automatically downgraded to a non-supported operating system under the conditions provided above.

Minimum hardware/software requirements

Processor	compatible with x64 instruction set, 2.2 GHz or higher
Memory (RAM)	4 GB or higher *
Storage	64 GB or higher *
Display	resolution 1024 x 720 (High-Definition) or higher, 24-bit color (true color)
Graphics adapter	64 MB RAM (256 MB RAM or higher recommended), 32-bit true color
Software requirements	Microsoft .NET Framework 4.7.2 or higher

* The actual required amount of memory and disk space depend on the usage (application, model setup, size of data files etc.)

Installation

DHI License Management - If you are installing on a computer or server where you will also install the license file, please also install the DHI License Manager. It must be downloaded separately.

To install MIKE HYDRO Basin, please go to the MIKE Zero product folder and execute the setup.exe file either on the MIKE 2024 USB or from the downloaded, un-zipped installation files. Press the 'Install' button to begin installation.

The setup program will automatically install all necessary files and folders on your computer. Additionally, an entry is created in the Start Menu for MIKE Zero.

License file and dongle

Please Note that when using the local or network license option, which requires a license file and a dongle, then

- the DHI License Manager must be installed separately.
- all licensed applications included in MIKE 2024 require a 2024 version of the DHI License Manager.
- a new license file format (file extension dhilic2) has been introduced with MIKE 2022 and these license files can only be used together with a DHI License Manager 2022 or newer.

To use MIKE software in licensed mode, please refer to the DHI License Manager Release Notes. (License Manager Release Notes)

Product invocation

Launch 'MIKE Zero' from the Windows Start menu. Then you can select MIKE HYDRO Basin from within the MIKE Zero Shell.

Starting any MIKE Zero application without a DHI configured hardware key and valid license files will cause the program to run in demo mode. If this happens, a message box will inform you during program initialization. When running in demo mode, the MIKE Zero installation supplies full access to all editors, computational engines and editing facilities. However, restrictions apply to the setups that can be executed as a model simulation.

Support

For general support, please refer to our Customer Care Portal.

If you experience any difficulties, or if you have questions, please contact our Customer Care team at mike@dhigroup.com.

You can also contact your local Customer Care team for support in your local language. A list can be accessed from here.

New features and fixed issues

Every new release of MIKE HYDRO Basin consists of new modules, new features and/or corrections to problems or significant inconsistencies discovered in previous releases. Please find below short descriptions of the most significant news.

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Fixed issues

Module/type	Error/Inconvenience
MIKE 1D engine	Added AddNAM dfs0 file to NAM output (TT64290).
MIKE BASIN engine	Made changes to application of initial conditions in water quality simulations (TT64189).
MIKE BASIN engine	Made changes limiting scope of global water quality parameter to initial conditions only (TT64190).
MIKE BASIN engine	Accounted for evaporation impacts on reservoir water quality (TT64191).
MIKE BASIN engine	Fixed bug preventing calculation of power production when tailwater table not used (TT64395).
MIKE BASIN engine	Fixed bug in calculation of unallocated water in reservoirs by global ranking algorithm (TT64639).
User interface	When catchments shapes were loaded from a shape file, deleting one catchment could convert remaining ones to sketched shapes.
User interface	MIHE HYDRO wrongly reported a validation error in the 'Sensors' page about a missing branch ID, even when the sensor was defined at a different object than a branch.
User interface	MIKE HYDRO crashed with an unexpected error when creating a catchment connection on the map.
User interface	Starting a simulation from 'Launch Simulation Engine' tool (Mzlaunch.exe) returned an unexpected error message.
User interface	The 'Measure' tool failed to measure distances on the map when using the 'Line' option.

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New features

Module/type	New feature
River	The River module is no longer included in MIKE HYDRO, as from Release 2024. It is replaced by MIKE+. The Basin module is now the only module included in MIKE HYDRO.
Basin / Control	Sensors can be located on any node on a river branch.
Basin / Results	During Rainfall-Runoff simulations with NAM, the simulation produces a text result file containing annual water balance information. A new option is added to the 'Standard results' page to change this file to save monthly water balance information instead.
MIKE BASIN engine	Added option to disable saving results when running MIKE BASIN engine from a script (TT62287).
MIKE 1D engine	Made improvements to calibration statistics output shown on NAM calibration plots. “R2” has been renamed “NSE”, and water balance calculation has been renamed “WBL % error”. In addition, water balance calculation is now an absolute value.
MIKE 1D engine	Made improvements to statistics output presented in RRStat file. “% diff” has been changed to “% error” to be consistent with calibration plot display. In addition, % error calculation has been aligned with calculation presented in water balance plot so that both use the same equation (observed flow in the denominator, absolute value).
MIKE 1D engine	Changed format of RRStat file from .txt to .csv to facilitate post-processing in Excel or python.

Fixed issues

Module/type	Error/Inconvenience
Rainfall-runoff	Rainfall-Runoff results from NAM simulations were reported with the same frequency as used for the Basin (network) simulation. Rainfall-Runoff results are now saved with the NAM simulation time step.
Load calculator	The 'Load Calculator' tool failed to generate loads with some model setups, when distance decay was applied.
Load calculator	The 'Load Calculator' tool sometimes returned an unexpected error while generating loads.
MIKE BASIN engine	Fixed error causing basin simulation to fail when branches are connected to a catchment node and a confluence at the same time (TT63092).
MIKE BASIN engine	Fixed errors in sediment transport module (TT63159, TT63157, TT63156)
Import/Export	Fixed error occurring when exporting Water Users shapefile (TT62819).
Catchments	Fixed bug in “Load shapefile” tool for adjusting catchment dimensions (TT63257).