

Release Notes 2023



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Introduction

Welcome to MIKE HYDRO 2023.

In this Release Note, you will find information about new features of MIKE HYDRO, and what you need to know in order to install and get started with Release 2023.

MIKE HYDRO is our common Graphical User Interface framework for some of the MIKE Water resources software products. Featuring a map based and easy-to-use Graphical User Interface, MIKE HYDRO is a MIKE Zero component which includes:

- MIKE HYDRO Basin: a modelling package for water resources planning and management in river basins
- MIKE HYDRO River: a one-dimensional modelling package for comprehensive river network modelling.

System requirements

Operating systems

Fully supported Windows operating systems *	Windows 11 Pro, version 22H2 (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, please go to the MIKE Zero product folder and execute the setup.exe file either on the MIKE 2023 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 2023 require a 2023 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 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

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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](#).

Future of MIKE HYDRO River

MIKE+ is DHI's new, modern flagship platform for water resources and urban MIKE applications. We have been working hard to ensure that all core functionality in MIKE HYDRO River is available in MIKE+.

MIKE 2023 is the last major release of MIKE HYDRO River. A final update will be included in the MIKE 2023 Update 1 release planned for Q2 2023. MIKE HYDRO River will not be included in MIKE 2024 (planned for Q4 2023) and beyond.

We strongly recommend that you upgrade now to MIKE+ to experience the wealth of new and improved functionality for MIKE HYDRO River. If you are unable to migrate your models to MIKE+, you will need to keep working with MIKE HYDRO River 2023 Update 1 for these models while you can start using MIKE+ for new ones. MIKE 2023 Update 1 can be installed alongside other MIKE versions. However, DHI cannot ensure that in the long term, MIKE 2023 Update 1 will still be compliant with future versions of Windows, so you might consider setting up a dedicated computer.

We will stop offering Technical Support and hotfixes for MIKE HYDRO River with the MIKE 2025 Release planned for Q4 2024. Please report any software and upgrade issues you have so that we can address them in a timely manner.

To learn more, please visit our dedicated [landing page](#).

New features and fixed issues

Every new release of MIKE HYDRO 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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New features

Module/type	New feature
General	A new "NOT(!)" connector has been added to the expression editor, to help building expressions for control rules.
MIKE HYDRO River	Sensor type 'Discharge' can now be defined in all types of structures: culverts, weirs, gates, pumps, dambreaks, bridge openings, tabulated structures, direct discharge structures.

Fixed issues

Module/type	Error/Inconvenience
MIKE HYDRO River	An unexpected error occurred when using the 'Edit in time series' editor in the 'Sensors' page.

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MIKE HYDRO River	The 'Allow for recalculation' check box for structures' processed data was always re-selected after closing and reopening the MIKE HYDRO file.
MIKE HYDRO River	The vertical extent of structures shown on the longitudinal profile view has been improved to be limited to the river's height.
MIKE HYDRO River	The 'Maximum breach slope' value in Dambreak structure was wrongly showing a length unit instead of a fraction unit.
MIKE HYDRO River	For '2D maps' results, water depths were computed based on unexpected DEMs (Digital Elevation Model), if such DEMs were also loaded as background layers on the map.
MIKE HYDRO River	For '2D maps' results, water depths were computed based on DEMs even when the use of DEM inputs was unselected.
MIKE HYDRO River	An unexpected error occurred when running a simulation including bed resistance factors, in case the branch name was undefined for some factors. A validation error has been introduced.
MIKE HYDRO River	An unexpected error occurred when running a simulation including water quality, when the MIKE HYDRO was initially created using an old version of MIKE HYDRO.
MIKE HYDRO River	The number of Q/h relations computed for culverts did not always match the number selected by the user.
MIKE 1D engine	Fixed error in the formulation of energy loss structures (TT61843).
MIKE 1D engine	Fixed errors in calculation of Q-h relations for culverts (TT22399, 53709, 54967, 24403, 20255, 19925)
MIKE 1D engine	Fixed error causing NAM autocalibration to run slowly (TT61627).
MIKE HYDRO Basin	Some River Node IDs were not shown in the overview grid in the 'Routing method' page.
MIKE HYDRO Basin	Changes to 'Groundwater' values applied in the 'Catchment definitions' page were sometimes lost after opening different pages in MIKE HYDRO.
MIKE HYDRO Basin	Updating a MIKE ECO Lab template in the 'Water quality definitions' page using the 'Upd' button did not save the updated values, which were lost after opening another page in MIKE HYDRO.
MIKE BASIN engine	Fixed error in updating the default elevation of a downstream outlet when converting pre-2019 setups to use the new reservoir outlets functionality (TT62108).
MIKE BASIN engine	Fixed error preventing use of downstream river channel to meet a storage demand from a downstream reservoir when reservoirs connected by reciprocal storage demands (TT 61568).