Release Notes 2023

MIKE FLOOD

Contents:

Introduction

Welcome to MIKE FLOOD 2023

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

MIKE FLOOD is a flexible user interface framework for dynamic linking of MIKE's one-dimensional and two-dimensional flood modeling packages. MIKE FLOOD is the integrated flood modelling package for rivers (MIKE HYDRO River and MIKE 11), overland flow (MIKE 21), and urban drainage (MIKE+). This combination ensures maximum flexibility by allowing users to model some areas in 2D detail, while other areas can be modelled in 1D, and hence the perfect modelling tool to apply for a wide range of flood related application including Coastal flooding, Urban flooding and Riverine flooding.

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.)

** MIKE FLOOD module for overland flow (specifically the MIKE 21 Flow Model FM – Hydrodynamic Module) utilizing GPU requires a Nvidia graphics card with compute capability 6.0 or higher. Please note that some of these graphics' cards have varying performance in single compared to double precision calculations. The GPU functionality is based on version 11.7.0 of the Nvidia® CUDA® Toolkit.

Installation

To install MIKE FLOOD, 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 require a license file and a dongle, then

- the DHI License Manager must 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 FLOOD 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.

Future of MIKE FLOOD

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 FLOOD is available in MIKE+.

MIKE 2023 is the last major release of MIKE FLOOD. A final update will be included in the MIKE 2023 Update 1 release planned for Q2 2023. MIKE FLOOD 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 over MIKE FLOOD. If you are unable to migrate your models to MIKE+, you will need to keep working with MIKE FLOOD 2023 Update 1 on these models while you can start using MIKE+ for new projects. MIKE 2023 Update 1 can be installed alongside other (newer) 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 as needed.

We will stop offering Technical Support and hotfixes for MIKE FLOOD 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 FLOOD 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
MIKE Zero	All User Guides are now available via right-click functionality on the MIKE Zero Start Page. User Guides and Scientific Documentation can now be accessed from the MIKE Zero Help menu.
MIKE Zero	Tabbing, tear off and cascade functionality has been improved (particularly when working with large DFSU time series files).

MIKE Zero	New keyboard shortcuts and themes for the MIKE Zero shell.
MIKE Zero	The MIKE Zero Climate Change Editor has been removed from the MIKE Zero framework with Release 2023.
MIKE 21 Flow Model FM	Improvements to the numerical scheme for hydrodynamic calculations using higher-order scheme. Specifically, improvements to the well-balanced scheme (including velocity-based reconstruction of face values and a new noise filter).
MIKE 21 Flow Model FM	Performance improvement of MIKE 21 Flow Model FM using GPU acceleration.
MIKE 21 Flow Model FM	Performance improvements using infrastructure with shape files (improved performance during initialisation phase for shapefiles that include many thousands of polygons).
MIKE 21 Flow Model FM	Inundation line output.
MIKE 21 Flow Model FM	Improvement of free outflow condition in the hydrodynamic module (improved stability).
MIKE 21 Flow Model FM	Improved log files to make it easier for users to track down errors in lateral, standard and point linkages using MIKE+.
MIKE+	Please refer to the MIKE+ Release Notes.
MIKE HYDRO River	Please refer to the MIKE HYDRO Release Notes.
MIKE 21 Classic	The Standard and Nested Grid based MIKE 21 Flow Model (usually referred to as MIKE 21 Classic) has been removed from the MIKE Zero framework with Release 2023. This means that the last MIKE installation to include MIKE 21 Classic was Release 2022 Update 1 (this previous version can today be installed alongside newer MIKE releases to run old Classic models as needed, but long-term compatibility with modern operating systems cannot be guaranteed). Technical support for MIKE 21 Classic will continue for 12-months from the release data of MIKE 2023 (this release), stopping in November 2023.

Fixed issues

Module/type	Error/Inconvenience
MIKE 11	Calculation of tables for structures in MIKE 1D have been corrected.
MIKE 11	Stability of control structures dialogs within the MIKE 11 UI has been improved.
MIKE FLOOD	Error handling has been improved when using MPI parallelisation with MIKE 21 Flow Model FM.
MIKE FLOOD	Error handling has been improved when using MIKE ECO Lab with coupled simulations.