Release Notes 2022

MIKE FLOOD

Contents:

Introduction

Welcome to MIKE FLOOD 2022 Update 1

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 2022.

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 21H2 (64 bit)
	Windows 10 Pro, version 21H2 (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 5.2 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 11.1.1 of the Nvidia® CUDA® Toolkit.

Installation   top

To install MIKE FLOOD, please go to the MIKE Zero product folder and execute the setup.exe file either on the MIKE 2022 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 2022 require a 2022 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 FAQ.

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. You can find the list here.

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.

Release 2022 Update 1

Note: Coupling between MIKE 21 Classic and MIKE 1D no longer supported. Coupling between the MIKE 1D and MIKE 21 Classic engines is no longer supported as of Release 2022. This means that MIKE 21 Classic cannot be coupled to river and urban software running MIKE 1D, including MIKE+ and MIKE HYDRO River.

New features

Module/type	New feature
Future of the Standard and Nested Grid based MIKE 21 Flow Model (usually referred to as MIKE 21 Classic)	**The Flexible Mesh based MIKE 21 Flow Model FM is the future MIKE package for all 2D free surface flow modelling applications.** Over recent MIKE releases, considerable efforts have been made to ensure that all core functionality from MIKE 21 Classic is available in MIKE 21 Flow Model FM. **A second announcement is hereby made that MIKE 21 Classic (and all variant engines, for example, MIKE 21 Flood Screening Tool) is planned to be decommitted as a MIKE product in the near future.** This decision is naturally taken with caution, and the time for decommitting will not be earlier than 6-months from the release data of MIKE 2022 Update 1 (this update release). Announcements on the decommitment schedule, including end of support, will be made via the DHI website in due course.
MIKE Zero	A **redesigned Start Page for MIKE Zero** collects an extended set of MIKE tools within theme-based (rather than product-based) interactive workflows, and introduces new MIKE Cloud applications and Cloud-enhanced functionality.
MIKE Zero	A new **graphical overview**, working together with the updated tabbing functionality in MIKE Zero, collects important model components (for example, sources and structures) in one interactive, customisable and floating mapping window.
MIKE Zero	**Updated tabbing functionality**: New tab grouping (horizontal and vertical), tear-off tabs from the main MIKE Zero shell, and new cascade and restore options.
MIKE Zero	The Grd2Mike tool has been updated to allow the specification of item details and land value.
MIKE FLOOD – 2D Overland	It is now possible to specify simulation period as a function of time step interval, simulation start date and simulation end date.
MIKE FLOOD – 2D Overland	It is now possible to import information for multiple pier structures via a text file.

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New features

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MIKE Zero	New tab-based navigation between editors, including 'tear-off' functionality to support multiple monitor setups, has been added to the MIKE Zero user interface.
MIKE Zero	Time Series editor has been extended and improved with new import and export functionality. Additional options now include import from Excel and KMD files.
MIKE FLOOD – 2D Overland	Improved performance for inland flooding applications using MIKE 21 Flow Model FM with GPU acceleration: • Tuning of timings and numerous small tweaks. • OpenMP parallelisation for pre-processing of infrastructure. • Pre-processing of boundary conditions (initialisation). • Optimised data transfer on inundation output. In addition, when using the 'Inland Flooding' option, a new dynamic list approach is used together with optimised gradient calculation for forcing calculations.

Fixed issues

Module/type	Error/Inconvenience
MIKE FLOOD	Mass balance calculations have been improved.