

Release Notes 2020

MIKE 21

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Introduction

Welcome to MIKE 21, Release 2020

In this Release Note you will find information about new features of MIKE 21, and what you need to know in order to install and get started with Release 2020.

MIKE 21 is the world's leading modelling package for 2D free surface flow, waves, sediment transport and environmental processes. It is the true work horse of estuarine and coastal modelling with a wider range of facilities and modules than any similar package

System requirements

The recommended minimum system requirements are:

Fully supported Windows operating systems *	Windows 10 Pro, version 1903 (64 bit) Windows Server 2016 Standard (64 bit) Windows Server 2019 Standard (64 bit)
Processor	x64, 2.2 GHz (or higher)
Memory (RAM)	2 GB (or higher)
Hard disk	40 GB (or higher)
Monitor	SVGA, resolution 1024x768 in 16-bit color
Graphics adapter	64 MB RAM (256 MB RAM or higher recommended), 32-bit true color **
File system	NTFS
Software requirements	Microsoft .NET Framework 4.7.2 or later

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- * 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.
- ** MIKE 21 Flow Model FM utilizing GPU requires a Nvidia graphics card with compute capability 3.0 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 9.2 of the Nvidia® CUDA® Toolkit.

Installation

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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 21, please go to the MIKE Zero product folder and execute the setup.exe file either on the MIKE 2020 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.

Important information: Please be aware that all MIKE software on the same computer must be installed with the same service pack. This is due to the dependencies between MIKE software products and the ability for the software to use the latest feature and systems updates.

License file and dongle

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 21 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 Success team by e-mail or phone:

Customer Success

DHI A/S
Agern Allé 5
DK-2970 Hørsholm
Denmark

mike@dhigroup.com

Tel: +45 4516 9333

You can also contact your local Customer Success team for support in your local language. You can find the list [here](#).

New features and fixed issues

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New features

Module/type	New feature
MIKE 21 Classic	MIKE 21/3 Oil Spill, MIKE 21/3 Particle Tracking, Non-cohesive Sediment Transport and the Generation of Sediment Tables, Extension of Sediment Tables and Sediment Discharge Calculation MIKE 21 Toolbox tools have been decommissioned and are no longer available. Support will be provided until November 2020.
MIKE 21 Spectral Waves FM	An extension of options for the separation of wind sea and swell in MIKE 21 SW has been implemented for better comparison with observations.
MIKE 21 Flow Model FM Hydrodynamics	GPU acceleration for Temperature and Salinity calculations and second order k-ε Turbulence calculations has been added.
MIKE 21 Mooring Analysis	We have integrated Trelleborg's AutoMoor products and technology within the MIKE 21 Mooring Analysis engine. This new functionality will provide port operators, and their consultants, with fast access to design and specification information for AutoMoor installations.
MIKE 21 ECO Lab FM	Google Earth (KML) output format for particle tracks in Particle Track, ABM Lab and Oil Spill modules.
MIKE 21 ECO Lab FM	New Flexible Mesh user examples for Oil Spill & Particle Tracking added.
MIKE 21 ECO Lab FM	Preview release of MIKE ECO Lab 0D engine.

Fixed issues

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Module/type	Error/Inconvenience
MIKE 21 Mooring Analysis	An error has been corrected in the Frequency Response Calculator interface where a crash can occur when grid/hull files are referenced but not present at the expected paths.
MIKE 21 Mooring Analysis	An error has been corrected in the Frequency Response Calculator interface where the visualisation of vessels in System View only considers (x,y) positions as integers.
MIKE 21 Mooring Analysis	An error has been corrected where the sequence of connecting two vessels with a line (A->B or B->A) affects the results.
MIKE 21 Flow Model FM Hydrodynamics	An illegal storage access error has been corrected in the free outflow boundary condition.
Documentation	A new example setup for the use of Long Culverts in MIKE 21 FMHD has been added.
Documentation	A new description of the Oil Refinery example has been added for MIKE 21 FMOS.
MIKE 21 Flow Model FM Transport	An error has been corrected with the correction of minimum concentrations in 2D Advection-dispersion calculations.

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MIKE 21 Flow Model FM Shoreline Morphology	Missing example setup files for the Harbour example have been added.
MIKE 21 Mooring Analysis	An illegal storage access error has been corrected when checking Bollard material profiles.