Release Notes MIKE 2025 Update 1

FEFLOW

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Introduction

Welcome to FEFLOW 10.0 Update 5 as part of MIKE 2025 Update 1.

FEFLOW is a subsurface finite-element simulation system that provides best-in-class technology for modelling groundwater flow, contaminants, groundwater age, and heat transport. With its efficient user interface and its yet unmatched range of functionality, FEFLOW has become a standard in premium groundwater modelling for over 35 years.

Groundwater and subsurface modelling projects are becoming more and more demanding—requiring modelling software with more sophisticated capabilities than ever before. In this document, you will find recent information about FEFLOW and what you need to know to install it and get started. Being part of the MIKE 2025 Update 1 release, FEFLOW 10.0 Update 5 provides a few new features.

The recently-integrated online-maps functionality has been extended to support the display of 3D terrain visualization in 3D view windows. Realistic 3D representation of a project area using satellite-image online maps are now possible in FEFLOW. A new toolbar provides control and with a simple click, an online-map visualization can be brought to any of the FEFLOW Supermesh, Slice, or 3D view windows.

A new "Create Surface From Supermesh Elements" tool allows to build surfaces in FEFLOW using mesh generator and interpolators. Based on a set of points, lines, and a horizontal extent, FEFLOW will create a triangulated surface honouring the position and elevation values specified by the input data.

System requirements

Operating systems

Supported Windows operating systems *	Windows 11 Pro, version 24H2 (64 bit) Windows 11 Pro, version 23H2 (64 bit) Windows 10 Pro, version 22H2 (64 bit) Windows Server 2022 Standard 22H2 (64 bit)
Supported Linux operating systems *	Ubuntu 20.04 LTS Ubuntu 22.04 LTS Ubuntu 24.04 LTS
Unsupported but partially tested operating systems **	Windows Server 2019 Standard, version 1809***

^{*} 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.

- ** Unsupported but partially tested operating systems 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.
- *** MIKE Cloud login is not supported on Windows Server operating systems.

Installation of MIKE software on any unsupported operating system is done 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 an unsupported operating system.

Please note that the system is automatically downgraded to an unsupported operating system under the conditions provided above when (1) running a supported operating system as a 'guest operating system' on a virtualization platform, or (2) executing FEFLOW inside a docker container.

Software and minimum hardware requirements

Processor	compatible with x64 instruction set, 2.2 GHz or higher
Memory (RAM)	16 GB or higher *
Storage	64 GB or higher *
Display	resolution 1024 x 720 (Full HD 1920 x 1080 recommended), 24-bit color (true color)
Graphics adapter	≥ 2 GB memory, ≥ 24-bit color, Shader version ≥ 1.30, minimum hardware accelerated OpenGL ≥ 2.0 / recommended hardware accelerated OpenGL ≥ 3.0 with fully supported Windows drivers
Software requirements	 Browser with internet access for the Online Help Microsoft .NET Desktop Runtime 8.0.0 (or later patch) when executing MIKE 1D and FEFLOW in coupled river-network/groundwater simulations **

- * The actual required amount of memory and disk space depend on the usage (application, model setup, size of data files, etc.)
- ** The FEFLOW Cloud Simulation panel (required for MIKE Cloud Execution) uses a self-contained .NET installation provided by the FEFLOW installer.

Installation

To install FEFLOW, please go to the 'windows' folder inside the 'FEFLOW' product folder and execute the 'start.exe' file either on the MIKE 2025 USB or from the downloaded, unzipped installation files. Press the 'Install' button to begin installation.

To start the FEFLOW installation, please click on 'FEFLOW Program Files'. It is recommended to allow the setup program to check for the latest patch on the MIKE Powered by DHI website to avoid any known and already fixed bugs.

All necessary FEFLOW files and folders will be installed on your PC. Additionally, a FEFLOW entry in the Start menu is created, containing links to the FEFLOW application itself and some supporting programs.

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 be installed separately.
- all licensed applications included in MIKE 2025 Update 1 require a 2025 Update 1 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 FEFLOW software in licensed mode, please refer to the DHI License Manager Release Notes. (License Manager Release Notes).

Product invocation

To start FEFLOW, double click on the FEFLOW 10.0 icon on your desktop or launch FEFLOW from the Windows Start menu and select the program you would like to start. Typically, this will be 'FEFLOW 10.0 Standard' or the free viewer 'FEFLOW 10.0 Viewer'.

When starting FEFLOW without a valid license it is recommended to switch to demo mode via Tools - License Setup in the main menu. This mode is indicated by the word 'DEMO' in the header of the FEFLOW application window. Running in demo mode, file loading and saving is limited to 2500 nodes.

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.

Decommissioned features

- As MIKE Cloud execution is scheduled for decommissioning, FEFLOW 10.0 (with all updates) is presumably the last version supporting access to MIKE Cloud simulations.
- External coupling to MIKE 21 FM is no longer supported.
- The Control-Volume FEM option for Richards-flow simulations was found to give unreliable results in some cases and thus has been removed.
- A local copy of the online help is no longer installed.

New features and fixed issues

Every new release of FEFLOW 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.

MIKE 2025 Update 1 (FEFLOW 10.0 Update 5)

New features

Module/type	Description
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FEFLOW / Usability	The recently-integrated online-maps functionality has been extended to support the display of 3D terrain visualization in the FEFLOW 3D view. This allows realistic 3D representations of a project area using online satellite-image map layers.
FEFLOW / Usability	A new <i>Online Maps</i> toolbar provides control over the online-map visualization features. A search field in the toolbar allows to search for specific addresses, coordinates and names, which can be defined markers. The toolbar also gives full control of the different styles for the markers.
FEFLOW / 3D Supermesh	The new Create Surface from Supermesh Element" tool allows to build surfaces in FEFLOW using mesh generator and interpolators. Based on a set of points, lines, and a horizontal extent, a triangulated surface is created that honours the position and elevation values specified by the input data.

Fixed issues

Relevance	Description
High	De-activating of well groups in Well Manager had no effect.
High	In certain cases the transport parameters of multilayer wells were accessed incorrectly.
Medium	Adding "satellite points" during supermesh editing was not operational.
Low	Excel-format files could not be exported from Well Manager.
Low	The default units used for some parameters did not match the documentation.