

# Perform accurate wave calculations without the usual limitations

## MIKE 3 Wave FM

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Do you wish you could reduce the uncertainty of wave impact calculations in your wave modelling work?

Are you looking for ways to lower the CAPEX and OPEX costs for your marine infrastructure projects?

Would you like to benefit from a wave modelling application that has been documented, tested and validated extensively?

## Imagine

Accurate calculation of wave transformation from deep to shallow water until it reaches the very edge of marine structures – and beyond – is of great importance to planners, designers, authorities and asset owners. This new knowledge supports cost effective design and planning of marine infrastructures exposed to wave forcings. Introducing an advanced modelling application that can help you calculate wave transformation processes quickly and accurately, along with these features:



### Covers fully nonlinear, fully dispersive surface gravity waves and ambient flow

A major advantage over other wave modelling applications.



### Uses flexible computational mesh

Flexible, unstructured computational meshes provide the basis for detailed multi-disciplinary models.



### Highly parallelised engine code

Significantly faster than computational fluid dynamics (CFD) volume-of-fluid (VOF) models.



### No wave height and wave period limitation

You will only need to resolve the physical phenomena properly in space and time.

## Our solution

MIKE 3 Wave FM is an advanced 3D phase-resolving wave model that can be applied to ports & terminals, coastal areas as well as the offshore and maritime industry. Made for world-class engineering projects, it has been documented, tested and validated extensively. This is what you can achieve with MIKE 3 Wave FM:

- **Robust simulation of wave breaking, wave run-up and overtopping:** When physical phenomena are properly resolved in space and time, you will be able to simulate all physical transformation wave processes.
- **More accurate modelling of porous structures:** The calculation of wave transmission and wave reflection is more accurate as compared to using various semi-empirical formulas.
- **Comprehensive, stable and user-friendly wave generation:** Faster model creation; reduces mistakes that can lead to failed designs and structural collapse.
- **Optimised CAPEX and OPEX costs:** The faster and more accurate modelling foster innovative cost-effective solutions to lower CAPEX and OPEX project cost.



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