

New innovative developments of MARIN clients require flexible and dedicated simulation tools (Courtesy SBM Offshore, Excalibur, BHP Billiton)



**aNySIM-Pro:**

# aNytime, aNyplace,

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**Last year, MARIN launched the aNySIM-Pro concept - a new way of sharing hydrodynamic software. Following the enthusiastic reaction from the offshore industry, MARIN has decided to share this most important time domain simulation tool with clients and it is now fully operational. Report highlights the advantages of the Professional aNySIM-Pro approach to your project.**

In recent years, developments in the offshore industry have shown the need for a more integrated and flexible approach. Therefore, MARIN decided to develop the modular “aNySIM” code for N-body simulations. This is a powerful time domain software that was developed as MARIN’s in-house computation tool for offshore design problems. Based on 25-years of MARIN’s experience with software models in the offshore industry such as LIFSIM, DPSIM and DYNFLOAT, aNySIM brought together the capabilities of different time domain software packages. This software facilitated multi-body simulation of the typical challenges that can be faced during the design of offshore structures. It has now become MARIN’s main hydrodynamic toolbox.

### Latest version

Up until now, aNySIM has been deployed as an in-house code that was used to carry out studies for clients. Often, aNySIM was used in combination with model tests, so that the tool was validated step by step. After gaining the required experience with the program, MARIN came up with a new way of sharing its hydrodynamic software, hence aNySIM-Pro. MARIN took aNySIM a step further in developing aNySIM-Pro, which is the project version of aNySIM.

aNySIM-Pro allows clients to use the latest version of the validated program for a specific project with MARIN's dedicated support and advice but without paying full license fees. Instead of buying or leasing the general program, a project-specific version of the program can now be shared. Clients pay a project license fee for the use of the program and for the actual support and training clients expect from MARIN at that moment.

# aNywhere... ◆◆◆

### How does it work?

When clients have a project and think they can use aNySIM-Pro they contact MARIN and indicate what sort of project they want to use it for.

A plan and schedule is then made for preparation of the executable aNySIM-Pro code and the necessary hydrodynamic input (HDB) files, based on the vessel or structure. Specific modifications and additions can be made in the client's aNySIM-Pro version when needed for optimum use in their project.

The required support and training needed for this project is agreed and planned. MARIN can even train the number of people clients want involved in the project. MARIN then prepares HDB-files and includes them into the project version of aNySIM-Pro. There is also the option of clients preparing a hydrodynamic database themselves. MARIN will then convert the database to the required aNySIM input

MARIN can also assist in the preparation of further input (mooring or DP systems), in a joint QA check and in the first runs. In combination with model tests, a tuned version of aNySIM-Pro can be provided. In principle, further input (such as mooring systems and DP systems) is a possibility. For instance, clients can perform their own design optimisation.

Clients receive the executable version of aNySIM-Pro, which is a perpetual project version that can be used by an unlimited number of users within their organisation. The scope of the project is defined beforehand and that determines the fee paid for the program. This approach allows clients to use the tool for the project they are working on and they can also check or modify things in the future.

### Advantages

There are several advantages of the new approach. Being MARIN's main tool for clients and research projects, aNySIM-Pro is continuously validated with model tests, so clients always get the latest version of the validated program. You work with the same tools as we do!

And as MARIN knows both the client's project and the aNySIM program, MARIN can offer advice about the applicability of the tool to projects or problems. If clients are close to the boundaries of its application or validation, MARIN can let them know.

Instead of buying or leasing a general code, clients only pay the project fee when they have a project and need the program. They do not pay for each new user license as the number of project users is unlimited and they do not pay for general support but only for the support and training specific to the project.

MARIN has developed a demonstration version of aNySIM-Pro that allows clients to try the concept. This example shows a two body, side-by-side mooring case with two tugs in close proximity. The case was validated against model tests that were carried out for an LNG carrier in shallow water.

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