

Challenging wind and waves

Linking hydrodynamic research to the maritime industry

Years of MARIN experience at your fingertips @ www.e-marin.com

MARIN launches online hydrodynamic service

In order to make MARIN's knowledge accessible to a wide group of users around the world MARIN has developed the internet service e-MARIN. e-MARIN allows users to access MARIN's knowledge in a modern way. Calculation methods are online and users can easily communicate with MARIN's specialists.

e-MARIN is the first online hydrodynamic design and support area on the internet. The ambition of e-MARIN is to provide a complete online hydrodynamic service covering Powering, Seakeeping and Manoeuvring issues.

The backbone of e-MARIN is the long history and knowledge of MARIN captured over a long period of time in numerous software packages. And importantly, this service has been created based on the feedback from a two year test period in which 44 companies participated.

Unique features

The web service currently consists of a basic resistance and propulsion package containing both a propeller design module and a speed power prediction suite. Keywords for the e-MARIN are: Quality, Intuitive and User guidance.

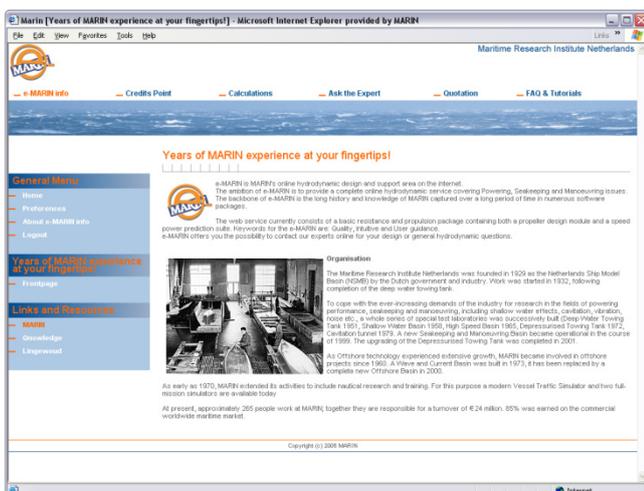
e-MARIN offers you the possibility to contact our experts online for your design or general hydrodynamic questions. Furthermore, e-MARIN offers the possibility to share experience or questions with colleagues from all over the world through our forum.

Secured working area

Each user works in a dedicated secured login and project area. In this area, you can carry out calculations, store and view calculations and ask MARIN for expert help if required. To get access to this service a certain fee has to be paid.

Expansion

The web service will start with a basic resistance and propulsion package that will then be expanded in the near future to include a seakeeping and manoeuvring functionality. Thus a total hydrodynamic design platform will be available with software tools that have been developed over the years.



Software

www.e-marin.com has started with two design applications: the Powering Prediction Suite and the Wageningen B-series Propeller Design Package.

MARIN's Powering Prediction Suite will enable the user to calculate the resistance, speed and propulsion characteristics of a (new) design. This application is based on the famous Holtrop en Mennen method (DESP). Uniquely, the user gets the possibility to carry out systematic parameter variations so they can explore the design envelope of a design.

Calculations - Starting Point

My Projects > test

Project: Speed power calculation

Continue Calculation Calculation details

Provide input and press Continue

| Parameters | Value | Dimension | Status |
|--|---------------------|-------------------|--|
| Combination of ship type, airbody configuration and DESPCODE | Open Selection Tool | [Te]tab | Manual input required |
| Length between perpendiculars input | | [m] | Manual input required |
| Length on waterline input | | [m] | Manual input required |
| Moulded beam input | | [m] | Manual input required |
| Average draught input | | [m] | Manual input required |
| Trim (trim by the bow is positive) | | [m] | Manual input required |
| Displaced volume moulded input | | [m ³] | Manual input required |
| Midship section coefficient | | [-] | Can be calculated with alternative input |
| Does the vessel have a bulbous bow? | No | [BLN] | Manual input required |
| Number of bilge keel sets: | None | [#] | Manual input required |
| Number of bow thrusters: | None | [#] | Manual input required |
| Number of fin stabiliser sets: | None | [#] | Manual input required |
| Propeller selection input | Open Selection Tool | [Te]tab | Manual input required |
| Design propeller diameter | | [m] | Manual input required |
| Design speed input | | [kts] | Manual input required |

Continue Cancel

MARIN's B-series Propeller Design Package enables the user to design a propeller based on the Wageningen B-Series. It is possible to optimise a propeller and adapt the rake and skew. Output will consist of a detailed propeller drawing and a design report. The new design can be used directly in a speed power calculation. In addition, the characteristics of another propeller design can be used as the basis for a new speed power prediction with the Powering Prediction Suite, based on a user-supplied set of open water data.

So years of expertise can literally be at your fingertips! Visit e-MARIN and explore the possibilities.

e-MARIN is powered by Quaestor and e-Groupware. e-Groupware is open-source groupware software provided by Lingewoud (www.lingewoud.nl) and Quaestor is the knowledge management system of Qknowledge (www.qknowledge.nl).

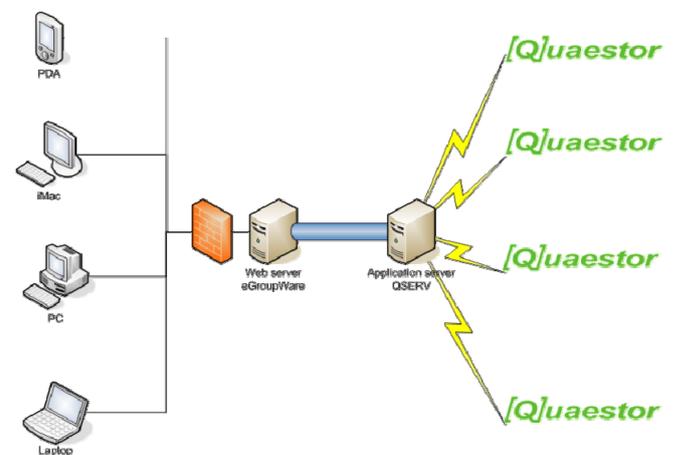


Figure 1: Schematic overview of e-MARIN's calculation architecture.

With the combination of e-Groupware as internet portal or web-based user interface and Quaestor as knowledge based system for calculation management, MARIN has received an environment to provide web-based access to all their existing and future software, data, documents, etc.

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