## Scenario knowledge base application examples QDESP

QDESP stands for Quaestor DESP, a knowledge base around MARIN's in-house speed power prediction program DESP. DESP is based on the famous Holtrop & Mennen method with B-Series propeller design.

The knowledge base incorporates the functionality of the DESP program and adds additional functionality such as:

- · Multi-dimensional parameter variation;
- Propeller open water input;
- Shallow water correction;
- Correlation with resistance, propulsion and speed trial data;
- Generation of an MS Excel sheet and an HTML report;

Moreover, QDESP is used on the e-MARIN platform as one of the applications.

QDESP is a good example of improving well encapsulated knowledge for wider use both stand-alone and as web-based application by both hydrodynamic specialists and naval architects. The numerous options and details of the original program are streamlined within <u>Quaestor</u> scenario's to enable users on several levels of expertise to carry out speed-power predictions and use the application to investigate their design from a calm water powering point of view.

## **QSTAP**

QSTAP stands for Quaestor Sea Trial Analysis Program, an application developed for and with MARIN in which Quaestor is used to analyse and present Sea Trial results.

The knowledge base started around several separate correction programs and later on was improved with knowledge developed as part of the STA-JIP project. The STA-JIP as a global group of more than 17 participant of the shipbuilding and shipping industry, from Hyundai Heavy Industries to Mearsk

QSTAP is a good example of the use Quaestor as an advanced platform for rapid application development based on existing and new knowledge components. The scenario concept is used to enable streamlining input and results prior and during the sea trials.

## **QCSPDP**

QCSPDP stands for Quaestor CSPDP, a knowledge base around MARIN's in-house B-Series propeller design program.

The knowledge base incorporates the functionality of the CSPDP program and adds additional functionality such as:

- Multi-dimensional parameter variation;
- Speed-power prediction for the design propeller based on QDESP;
- Generation of an MS Excel sheet, HTML report and AutoCAD drawing;

Moreover, as with QDESP, the knowledge base is used on the <u>e-MARIN</u> platform as one of the applications.

As with QDESP, QCSPDP is a good example using Quaestor to translate traditional client software into web-based applications.

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