

ReFRESKO-Operation

Unique Opportunities in CFD



BY HENK PRINS

Last year MARIN launched an innovative initiative to start a partnership with its clients for a maritime Computational Fluid Dynamics' (CFD) development, validation and application known as the "ReFRESKO-operation."

CFD plays an increasingly important role in the design of maritime and offshore structures. MARIN has always supported this with dedicated tool development, extensive validation and application. Recently, MARIN invested in a large computer cluster and this computing power, together with the CFD Code ReFRESKO, forms a new facility, "The Maritime Cluster."

Naval architects and offshore engineers increasingly use CFD calculations

themselves or plan to do so in the near future. To stimulate cooperation and interaction in this field, MARIN now invites its clients to take part in the ReFRESKO-operation. In this partnership, MARIN wants to share its dedicated CFD Code ReFRESKO, which is extensively verified and validated for maritime applications. Furthermore, MARIN will open its computer clusters for ReFRESKO users, so that it can jointly work with customers on the reliable and robust application of CFD in the maritime field.

The ReFRESKO-operation means that the ReFRESKO Code will be provided to customers without limitations on the number of users or compute cores. The MARIN medium cluster of 1600 com-

pute cores provides the possibility to scale up calculations without the need for large investments. An extensive team of CFD specialists at MARIN is available to support the customer's CFD team, to provide insight into the methodology and in the source code. To support the ReFRESKO-operation, MARIN is significantly extending its CFD development, validation and application team.

By participating in this unique cooperation MARIN and its customers can help in the further development, validation and application of CFD for maritime applications. ReFRESKO does not replace generic, commercial CFD codes, which also have their merits and can be used for a wide range of applications. However, these codes are often not validated for

the maritime sector. ReFRESKO gives the possibility to apply CFD reliably for specific maritime applications in direct open interaction with the developers and other users. The ReFRESKO-operation partnership has already started but new participants are welcome to join.

www.marin.nl/refresco-operation

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