

Kalmar Project Manifesto

Abstract

M. Michal Latacz designed an innovative water propulsion system based on observing nature. Basically, this system mimics some animals such as rays and squids and using membranes instead of spines.

System benefits

The system (hereafter called "Kalmar System") has several benefits :

- silence
- dramatic output improvement over classic water propulsion system, involving energy savings

Dassault Systèmes involvement

Mr. Latacz used CATIA V5, Dassault Systèmes flagship computer aided design solution, to design his system when he was a student.

Dassault Systèmes has launched a technical sponsorship program, Passion for Innovation. This program wishes to help independent persons or non-profitable organizations to realize innovative projects thanks to Dassault Systèmes 3D software solutions. More info on this program may be found at <http://www.3ds.com/passionforinnovation>

Dassault Systèmes thinks Mr. Latacz system has a high potential and is happy to welcome him in the Passion for Innovation program.

We were struck by his modeling quality and by his eco-design capabilities. Having observed Nature to design his system was a smart move that we highly value.

Therefore, we are happy to welcome Mr. Latacz in Passion for Innovation to develop and optimize his system.

Future developments with Dassault Systèmes solutions

Mr. Latacz will benefit from free software licences, training and methodology support in order to:

- study and optimize the system structure using finite element modeling
- study and optimize water flow
- study and optimize materials, especially for the membranes.
- And generally to simulate in a realistic way the system in order to industrialize it
- Communicate about the system using 3D realistic data.

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