Hull Lines Measurement and Lines Generation

WOLFSON UNIT

FOR MARINE TECHNOLOGY AND INDUSTRIAL AERODYNAMICS

Introduction

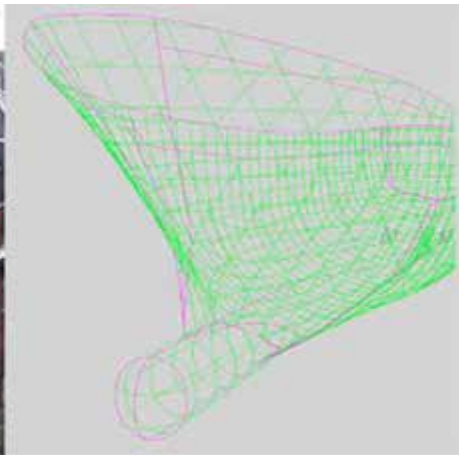
The Wolfson Unit is now offering a hull surface measurement service for existing vessels. The output from the exercise is a hull lines plan and a 3D hull surface definition. These outputs can then be used for hydrostatics calculations and general design work.

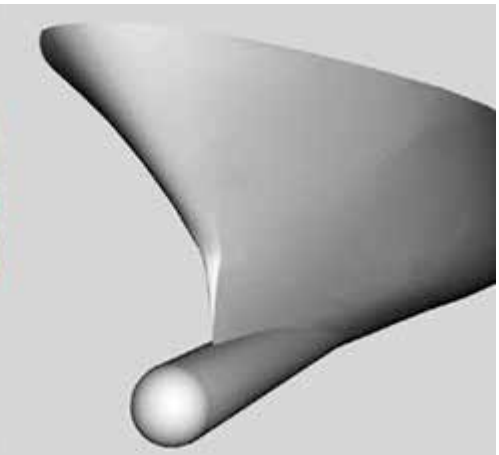
Method

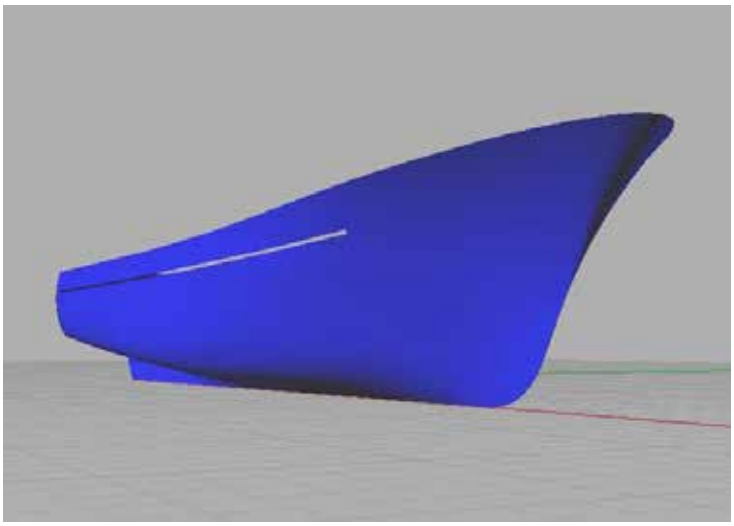
A method, using laser scanning technology, developed by the Wolfson unit has proven to work extremely well. The change from previous practice is to devolve the process into separate phases of measurement; lines generation and verification. The measurement is undertaken by a Wolfson Unit naval architect and the lines are then generated by the same naval architect using 3D surface rendering program. Once the lines plan is complete the data may be imported directly into 'HST', The Wolfson Unit hydrostatics and stability program and can be supplied to client in a variety of formats such as igs,3dm or step file.

Measurement

A laser theodolite is used to measure the angle and distance of the hull surface by reflection. When the hull does not reflect well enough or specific points on the hull are required then reflective tape targets may be employed. Once the measurement is complete a CAD file of all the points in 3d space coordinates relative to the base station is produced. This file and associated sketches are used as the basis for the lines generation.







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