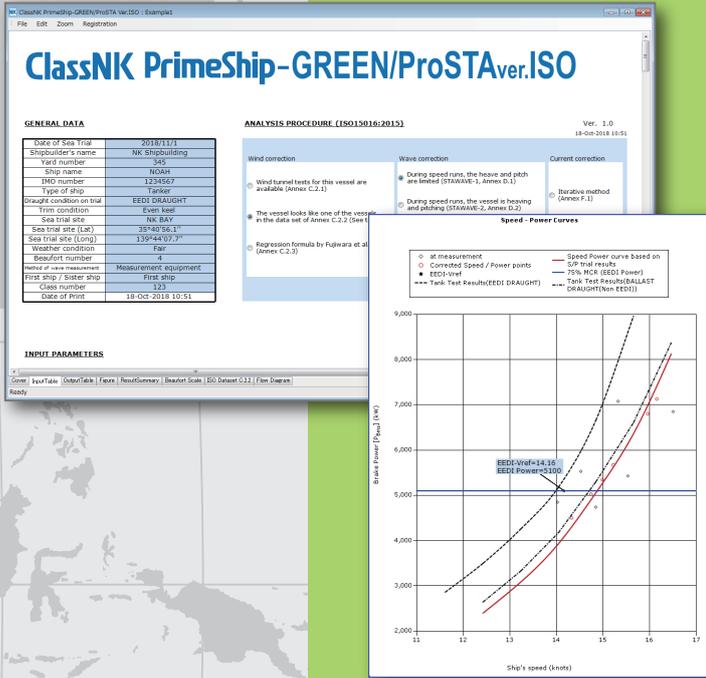


# GREEN / ProSTA ver.ITTC

Software for Progressive Speed Trial Analysis



## Key Features

- ◆ Speed-Power performance analysis of progressive speed trial in compliance with ITTC 2017 Guidelines (ITTC Recommended Procedures and Guidelines 7.5-04-01-01.1 Preparation, Conduct and Analysis of Speed/Power Trials; 2017)
- ◆ User-friendly interface
- ◆ Transparent and easy-to-understand output
- ◆ Auto-generation of output results and figures for class approval

PrimeShip-GREEN/ProSTA ver.ITTC is a software that allows users to analyze ship speed correction at progressive speed trials taking into account factors such as wind, current, wave, shallow water, displacement, water temperature and water density in compliance with ITTC 2017 Guidelines, and derive a ship speed for Energy Efficiency Design Index (EEDI) calculation.

## Structure of the software

### Input

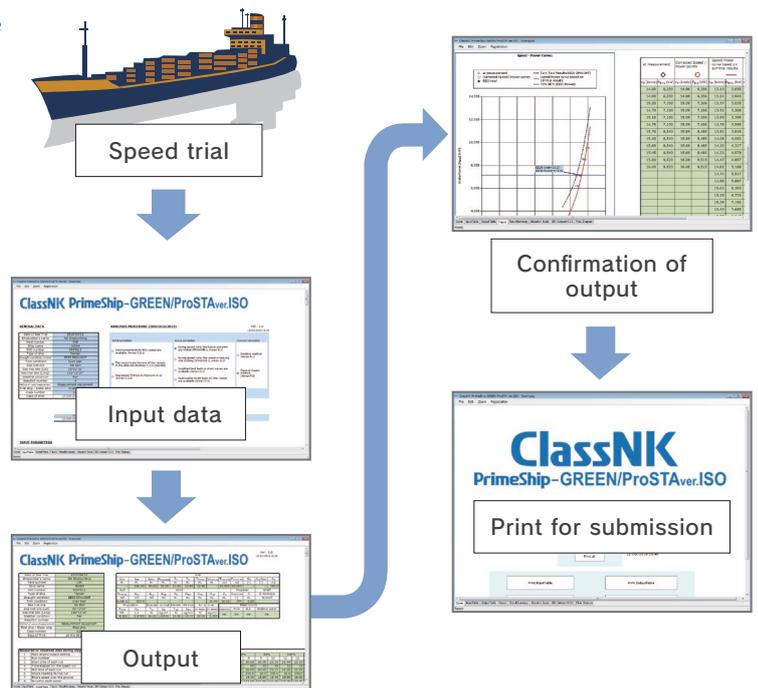
- ◆ Ship's principal particular
- ◆ Measured data on speed trial
- ◆ Weather conditions
- ◆ Self-propulsion factors, etc

### Analysis steps

- ◆ Correction for resistance increased by wind, waves, water temperature and water density
- ◆ Correction for current
- ◆ Correction for displacement
- ◆ Correction for shallow water

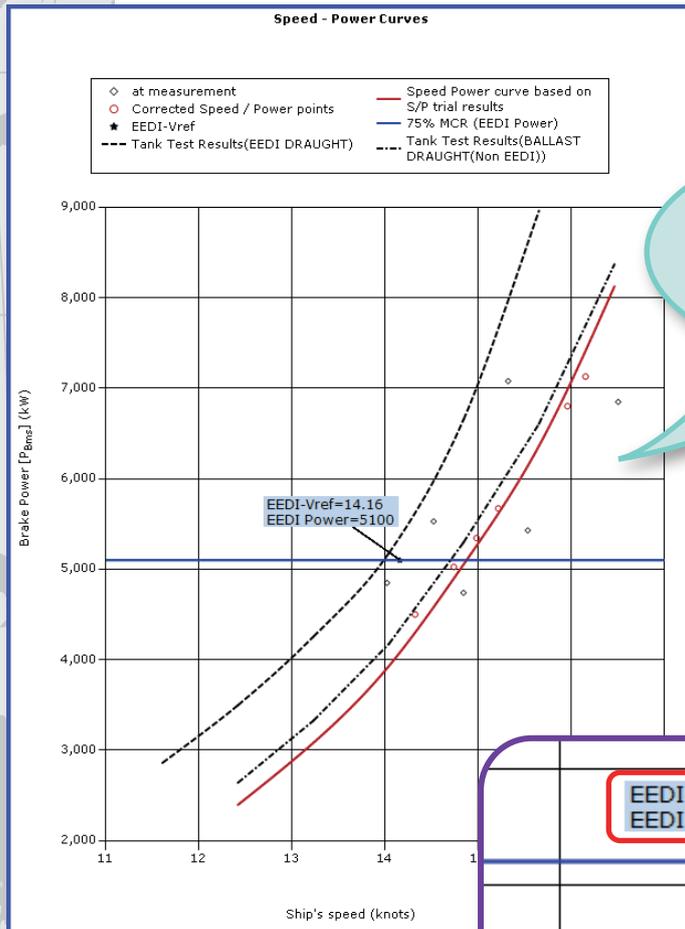
### Output

- ◆ Calculation details
- ◆ Current curve
- ◆ Speed-rpm curve
- ◆ Speed-power curve



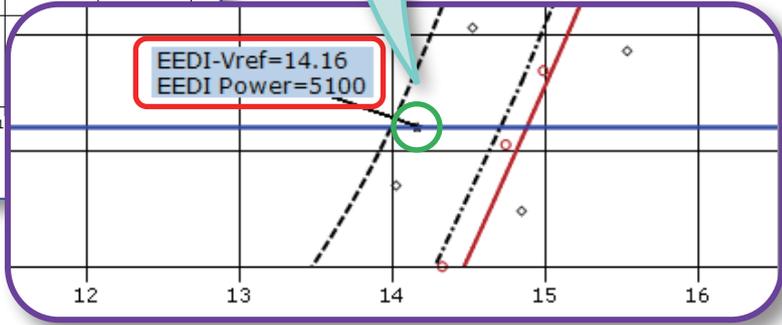
## Estimation of the reference ship speed (Vref)

- ◇ The reference ship speed (Vref) required for EEDI calculation can be estimated on the basis of analysis results.
- ◇ Vref is the ship speed in EEDI loaded condition\* at 75%MCR assuming calm weather with no wind and no waves. \* EEDI loaded condition: 70%DWT for Container ships, summer full load draft for other types of ships.
- ◇ For ships for which sea trial cannot be conducted under EEDI loaded condition, Vref is estimated by the following procedure:
  - ① Power curves under EEDI loaded condition and sea trial condition should be determined by conducting tank tests.
  - ② Vref should be adjusted taking into account the speed trial results.



Speed correction for wind, waves, current, shallow water, displacement, water temperature and water density

Vref can be estimated



## PrimeShip-GREEN/ProSTA system requirements

Hardware requirement	Software requirements
Print function of Microsoft Windows	<ul style="list-style-type: none"> <li>• Windows 7 SP1 and above</li> <li>• NET Framework 4.5.2 and above</li> </ul>