KANSAI PAINT MARINE CO.,LTD.

KANSAI PAINT

Paint Sommelier

CO_2 emission reduction support with the motto of utilizing real data

Mutually linked system utilizing bio-fouling data of vessels in service collected by Kansai Paint Marine, analysis of service profiles based on AIS information, and a propulsion performance analysis program created from the perspective of paint manufacturers.

- Data-driven approach

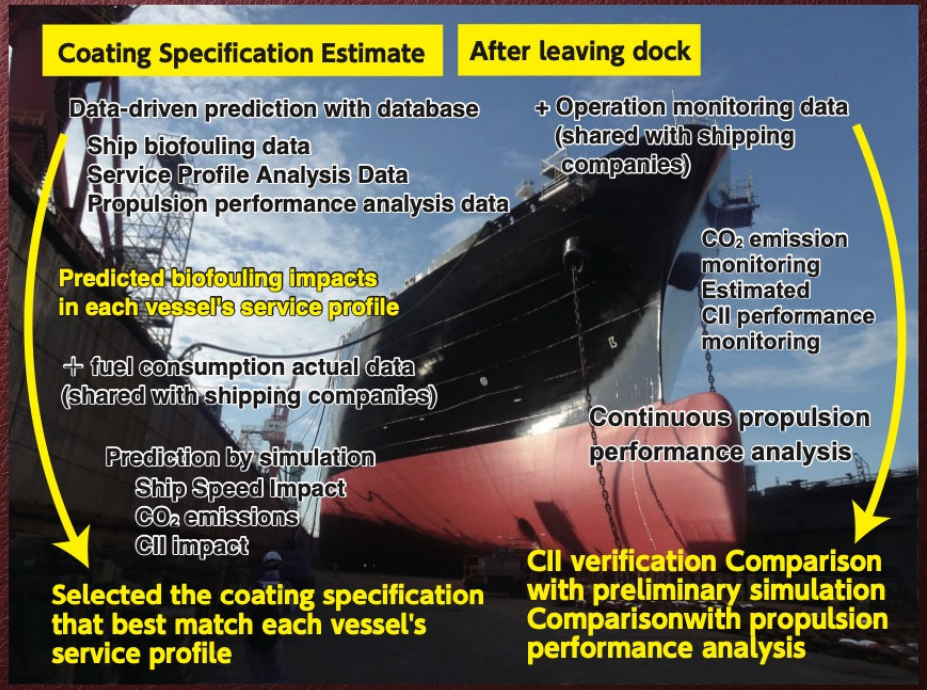
Analyze the service profile of the target vessel by using AIS information, biofouling performance is predicted for each candidate paint specification by cross-referencing with the biofouling database of vessels in service.

- CO_2 Emission Simulation

At the coating specification estimation stage, annual fuel oil consumption, actual voyage distance, data-driven biofouling performance predictions, and power curve information are input, and CII simulations are performed based on up to four cases of coating specifications and route setting conditions etc.

- CO_2 Emissions Monitoring

After leaving the dock, we will share the in-service data upon request, monitor estimated CII performances, compare them with the preliminary simulation results, and verify the impact of biofouling through propulsive performance analysis.



Potential client : Ship owner, Ship management company, Charterer, Cargo owner

Contact detail

Please feel free to email us at Paint Sommelier

paint_sommelier@kp-marine.co.jp

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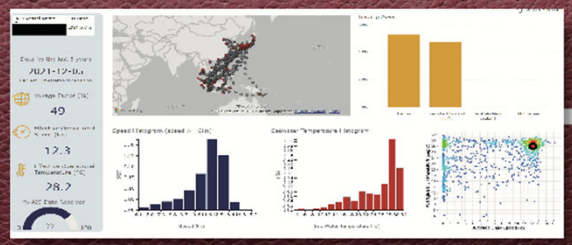
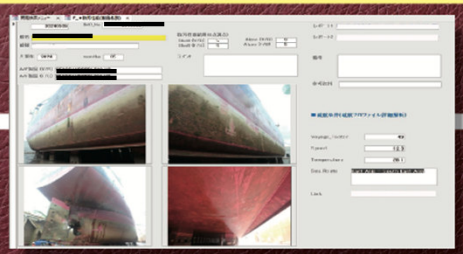
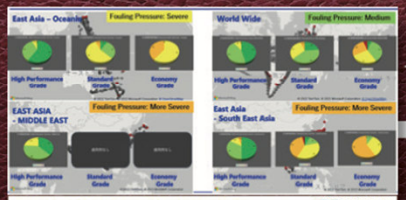
① In-Service Profile Detailed Analysis

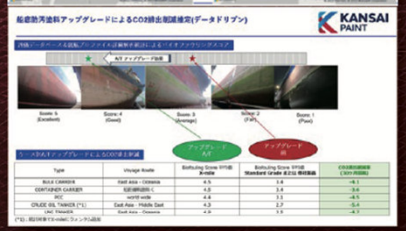


② Biofouling database of ships in service

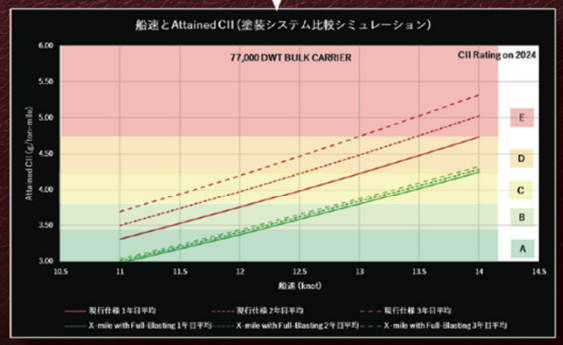


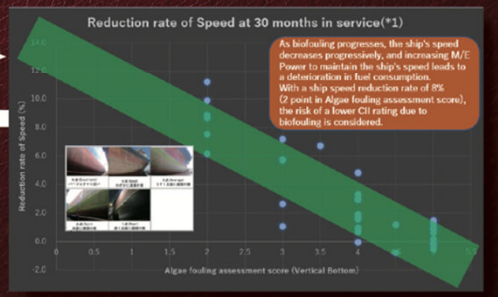
③ Propulsion Performance Analysis (KPM-PASS)





④ Biofouling Statistics and Predictions by Data Driven





⑤ Trend Analysis
Biofouling - Propulsion Performance

⑥ CO_2 emission simulation and monitoring reflecting biofouling statistics and each vessel's propulsion performance

+ Data provided by shipping companies (operation logs, fuel consumption data, power curves for newbuildings, etc.)

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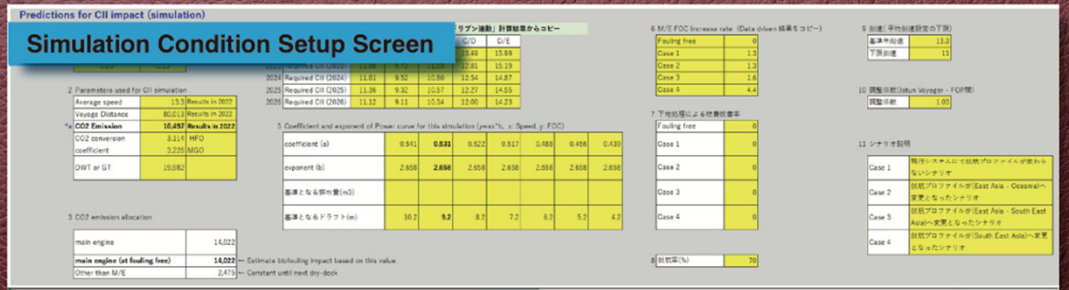
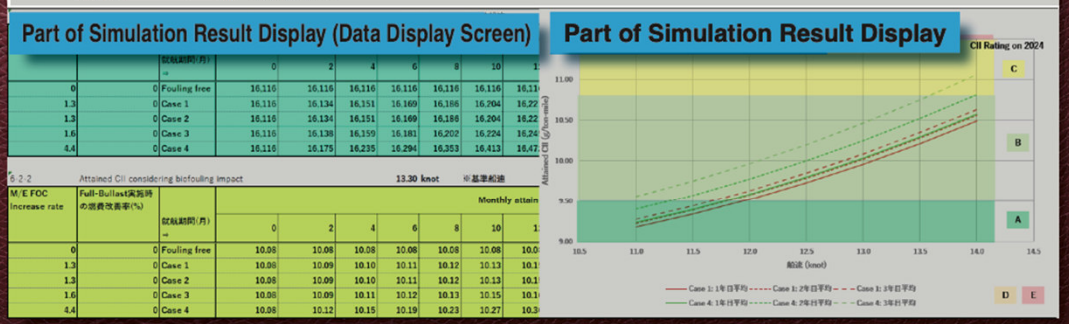




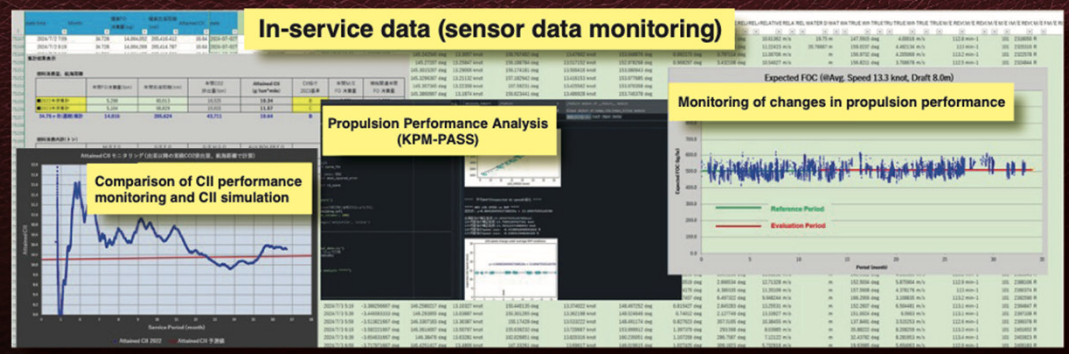
CO_2 emission simulation

Upper row: Condition setting screen

Vessel's operating parameters, annual fuel consumption, annual voyage distance, and biofouling data-driven calculation results, power curve parameters, expected service route, and other profile conditions, etc.

Lower row: Simulation result screen

Simulation results are output for each service profile, including CO_2 emission calculations by ship speed, estimated attained CII calculations, and estimated CII ratings by year.



CO_2 emission monitoring

Statistics: fuel consumption in main engine / generator and boiler, voyage distance, CO_2 emissions, estimated attained CII, estimated CII rating, etc.

Monitoring: fuel consumption in main engine / generator and boiler, voyage distance, CO_2 emissions, estimated attained CII.

Propulsion performance analysis: Monitoring for performance change.

Validation of simulations: Comparison of simulation and actual measured approximate values in attained CII.