



MariApps Marine Solutions

smartOps 

Performance



Operations



Alerts



Monitoring

smartOps is an advanced analytics platform that supports the optimization of vessel operations.

- It utilizes data reported through a state-of-the-art vessel application, telemetry data recorded directly from sensors, as well as position and weather data. Vessels are benchmarked against their own tailored digital twin, with results delivered in a clear and user-friendly manner
- It offers tools to manage decarbonization, while enabling cost and reliability efficiencies through predictive and proactive insights – transparently, ashore, and onboard



Operations

- MRV/DCS Compliance
- Fuel, Cargo, and Emissions Analytics
- Carbon Intensity Indicator (CII) Toolkit
- Voyage planning and weather routing based on performance / consumption vessel
- Charterparty Compliance Monitoring
- Post-voyage analysis including report generation with CP performance assessment



Performance

- Hull & Propeller Condition management including predictive inspection advice
- Actual Speed & Consumption calculation in any draught and weather condition
- Engine Assessment including Fault Diagnostics
- Cylinder Oil Optimization
- Auxiliary Engine Utilization
- Boiler Utilization
- Cargo Conditioning

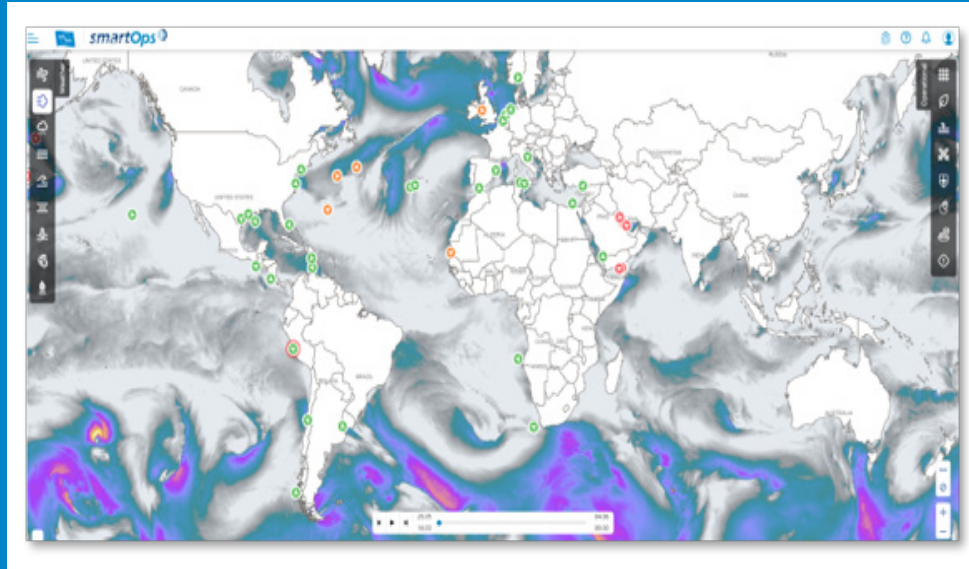


Alerts

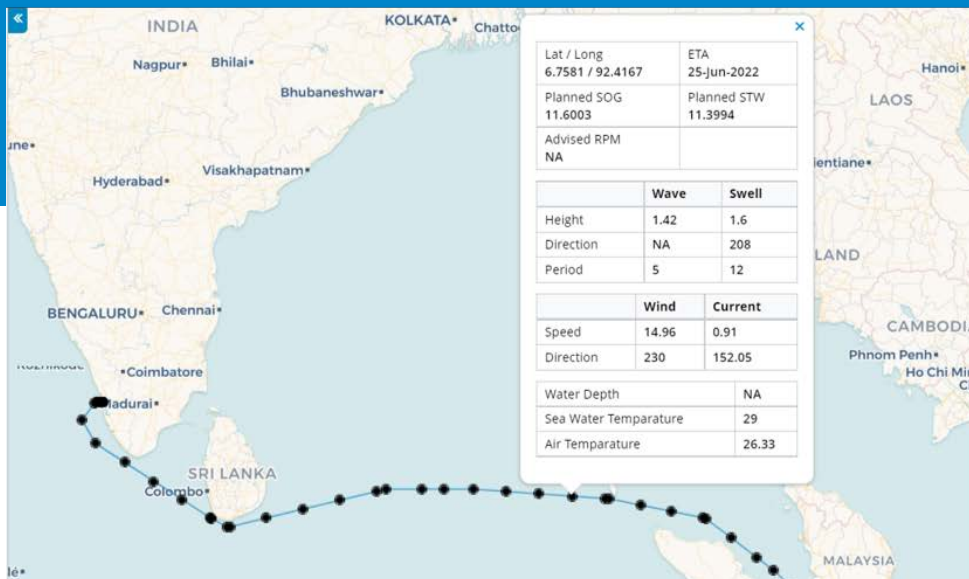
- Triggered by any data source
- Highly configurable
- Automatically escalating
- Escalation speed based on the criticality
- Ship/shore chat function
- User-set geofencing alerts
- Mobile application

Operations

Voyage optimization and weather routing:
improve safety while lowering emissions and costs

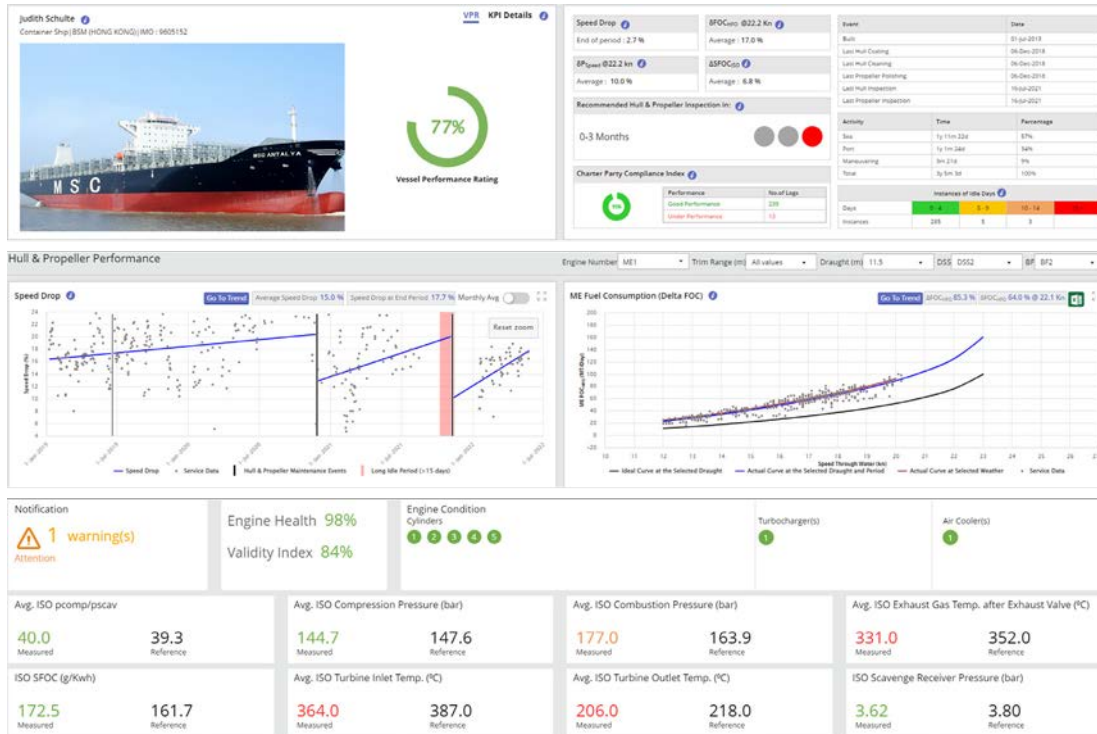


- Global overview including prevailing and predicted weather
- Overlay of constraint areas with addition and proximity controls
- Route and trim optimization
- Fuel consumption per grade and consumer
- Onboard power management at sea, port manoeuvring
- Emissions, cargo, and transport work statistics & KPIs
- CII calculation and future projection on fleet and vessel level



Performance

Advanced analytics drive the efficiency and reliability of your fleet



- Holistic fleet & vessel performance rating
- Tailored digital twin benchmarking
- Hull & propeller condition analytics including inspection recommendations
- Accurate, actual speed & consumption description
- Charterparty compliance monitoring
- Engine performance analytics including fault diagnostics and prescriptive recommendations
- 2 & 4 strokes, dual fuel support
- Guided, engine-specific cylinder oil optimization

Alerts

Proactive alerts safeguard your vessel performance

Performance Alerts
Active Inactive Archive

Severity	Message	Generated On	Alert Triggered To	Details
1	No Voyage logs have been received in the last 17 day(s)	20-Jan-2020	FPC / FD / MD / FM / TSI / MSI / VO	
1	No Voyage logs have been received in the last 30 day(s)	21-Nov-2019	FPC / FD / MD / FM / TSI / MSI / VO	
1	High AE SFOC for last 20 sea logs	21-Nov-2019	FPC / FD / MD / FM / TSI / MSI / VO	
1	No Voyage logs have been received in the last 57 day(s)	21-Nov-2019	FPC / FD / MD / FM / TSI / MSI / VO	
1	High ME fuel consumption for last 20 sea logs	10-Jan-2020	FPC / FD / MD / FM / TSI / MSI / VO	
1	No Voyage logs have been received in the last 19 day(s)	27-Nov-2019	FPC / FD / MD / FM / TSI / MSI / VO	

Low A/E Utilisation for last 20 sea logs

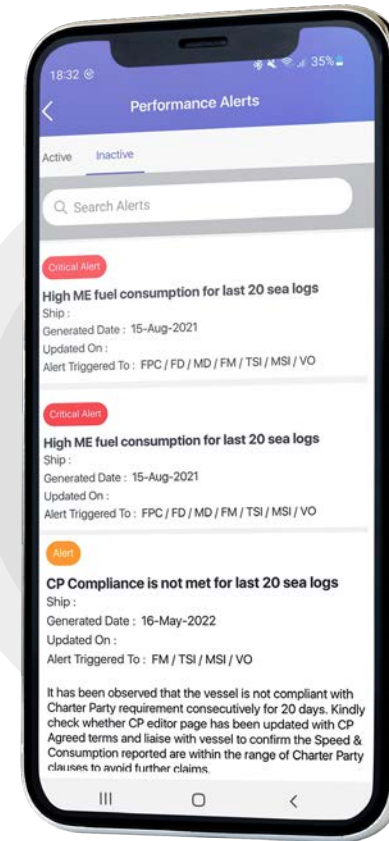


16-May-2020 | Grading: FPC / FD / MD / FM / TSI / MSI / VOPR

The Auxiliary Engine Utilisation is below 30 % for the last 20 Sea Logs (Noon & EOSP). This indicates that the ship is running more Auxiliary Engines than necessary. This in turn means a higher fuel consumption, as well as unnecessary additional running hours on engines with an impact on the ship's OPEX.

Please follow up to ensure that a better practice is followed.

AE Utilisation is a KPI that demonstrates how efficiently the power demand is shared across the Auxiliary Engines, with a higher score (%) being better than a lower one. In practice, this means that for the same value of power demand, a ship that runs two AEs at high load (e.g. 70% MCR) will get a high AE Utilisation score, whereas a ship that runs three AEs at low load (e.g. 45% MCR) will get a low AE Utilisation score.



- Vessel specific, based on tailored digital twin
- Configurable to your requirements
- Automatically escalating based on the criticality
- Delivered on your desktop, as well as on your mobile
- Concurrently available onboard with ship/shore chat function

Integrations and Data Sources



Weather route file integration

smartOps integrates any route file created by the vessel or provided by the Charterer

Telemetry system integration

smartOps is vendor agnostic and can ingest telemetry data from any onboard installation or ashore directly from a 3rd party infrastructure.

Data sources used by *smartOps* :

- Noon and Hull performance reports from any source
- Main and Aux engine performance reports
- Telemetry Auto Logs (if available on vessels)
- High-frequency AIS data
- Route file for voyage plan from vessel ECDIS
- Weather data
- Any required 3rd party interface

smartOps Vessel Module

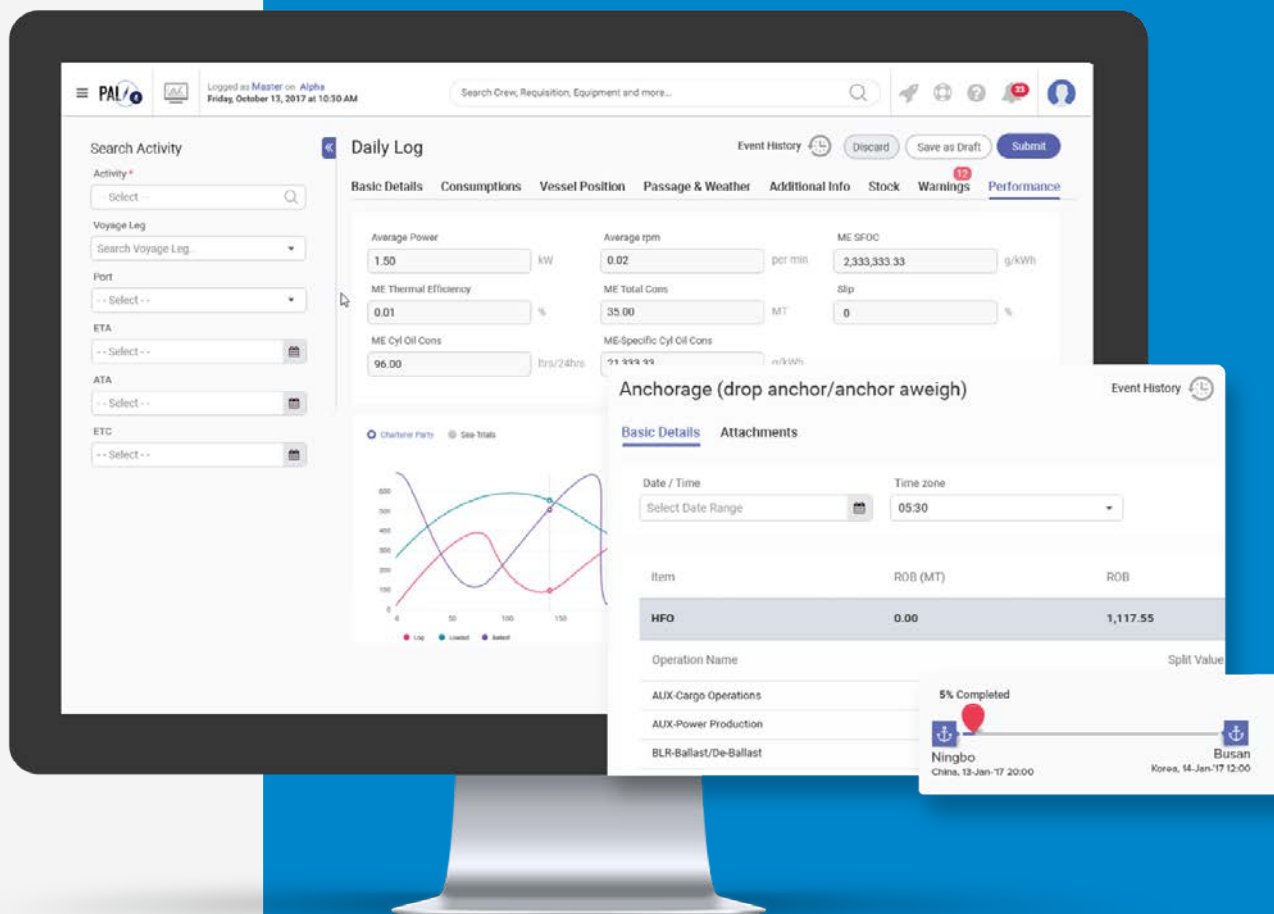
The *smartOps* vessel modules ensures data quality at the point of entry through a comprehensive set of control measures.

Dynamic forms

- Dynamic forms as per vessel configuration and engine type

Validations

- 400+ static Validations
- 100+ dynamic Validations
- 100+ cross Validations



Telemetry integration

smartOps can integrate with any onboard telemetry provider and relay live data from the vessel.

Vendor agnostic
integration

Relay live data through
Modbus integration

Our Partners



Telemetry Installation



AIS & Weather Forecasts



Route Optimization

*We are flexible to work with any other partners of the client's choice

Fleet Monitoring Centre

The in-house Fleet Monitoring Centre (FMC) offers clients services such as 24-hour operations, digital support, the ability to stream vessel sensor data, remote monitoring screens, infrastructure, and dedicated teams.

FMC activities include:

Navigation, operational, commercial optimization and efficiency assistance are provided to the fleet teams (based on manual reporting and high-frequency AIS data)

Monitoring and reporting of navigational safety including weather warnings, routing, emission area, canal transits, and piracy areas

Real-time monitoring of equipment parameters and utilization (For vessels fitted with telemetry)

Fleet Monitoring Centre





Services On-demand





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