

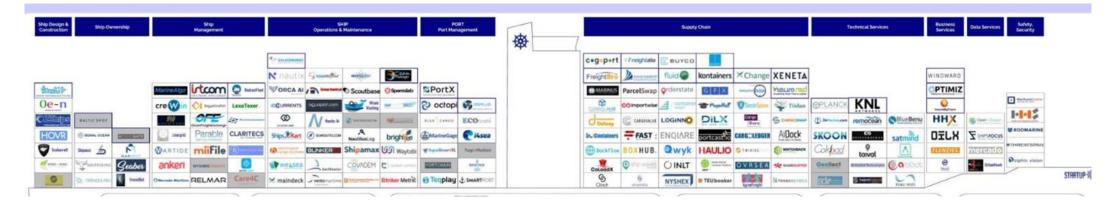
Objectives

- Introduce the Signal Group & our technology
- How has the industry changed the last 3-4 years?
- APIs and Data Warehouses as an alternative to multiple screens
- · Case study: Build your own platform
- Decarbonization: Just the beginning

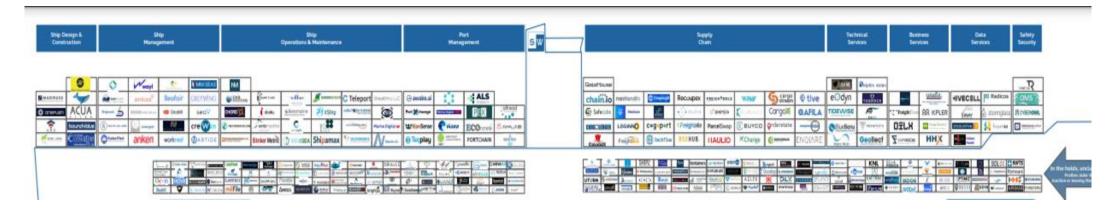


How the industry has changed the last 3-4 years?









Data gathered from: https://www.startupwharf.com/startu

APIs and Data Warehouses as an alternative to multiple screens—



Does this look like a place to focus on a task?

- More solutions available/ multiple desks trying & adopting multiple solutions
- 2 Fight for reducing number of screens

- 3 Competitive freight market/ Capture changes real time
- 4 Urge to build proprietary systems / custom algos

What is SIGN & L

?

Signal's data fusion and delivery options explained

Signal: Your private Shipping Analytics solution





DATA

ENGINE

INTERFACES

Your Commercial data niche, proprietary, intraday

Fixtures, Cargos, Vessel
Positions & Lineups in email,
Slack, manual entries or
other systems/data feeds...

Signal Commercial Data

- · Fixtures, Cargos, Vessel Positions & Lineups emails
- · Market Rates/Assessments
- · Port Expenses & other data
- Bunker prices
- · + much more

Signal Geospatial Data

- · Global geofencing data
- Treated and combined AIS data from multiple sources (incl. dynamic)
- Weather data

Signal Reference Data

- Vessels
- Companies
- Estimated Flat Rates
- + much more

Data Fusion & Analytics Engine

Data Scraping

Automatic detection, extraction, fusion, consensus and deduplication of data from various sources

Ports

Port situations, congestions, delays, turnaround times, expenses, bunkering prices, full port call DB +more

Vessel Supply & Demand

Forecasting and a wide variety of signals & analyses for vessel supply and demand across areas and trades

Shipping Economics

Vessel valuations, TCE calculations and comparison engine, Freight Pricing, Position Values and much more

Voyages

Live voyages model with forecasting based on AIS and commercial information awarded a US Patent

Cargoes

Estimation of grades and quantities linked to vessel voyages, automatic vessel and cargo matching + more

Emissions & Consumptions

Model-based estimations of consumptions and emissions for all ships, all fuel grades and all key activities

Performance Management

Commercial performance models & driver analysis, benchmarking, learning, collaboration & recommendations

The Signal Ocean Platform

A rich ever expanding collection of tools, data and reports. See <u>our website</u> for details.

Application Programming Interface (API) Suite

- · Voyages Data API
- · Scraped Data API
- · Tonnage List API
- Port Expenses API
- · Freight API
- · and more...

Data Integration Suite

get your Signal insights in:

- · your own or a 3rd party Data Warehouse
- · standard analyst stacks:

Excel or Google Colab

communication systems,e.g. Slack, Whatsapp

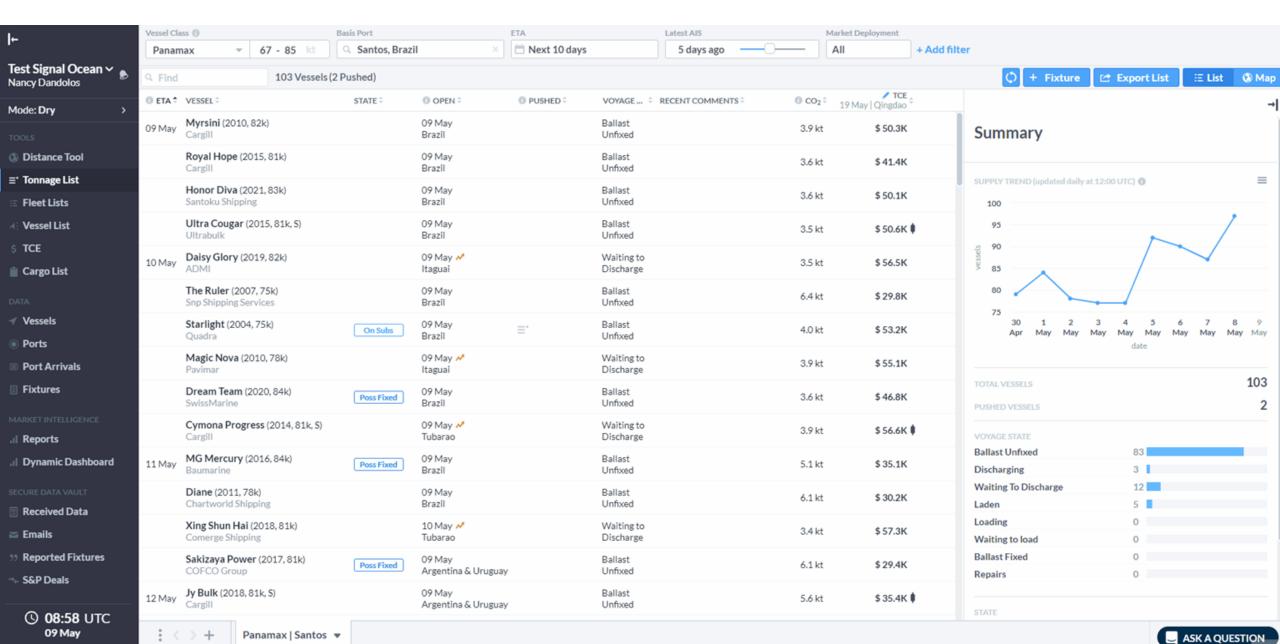
Integrations / Real time response/ Alternative feeds



1 Capture live changes- <u>Video 1</u>

2 Capture live changes without any data entry -Video 2

Capture live changes without any data entry and process-Video 3



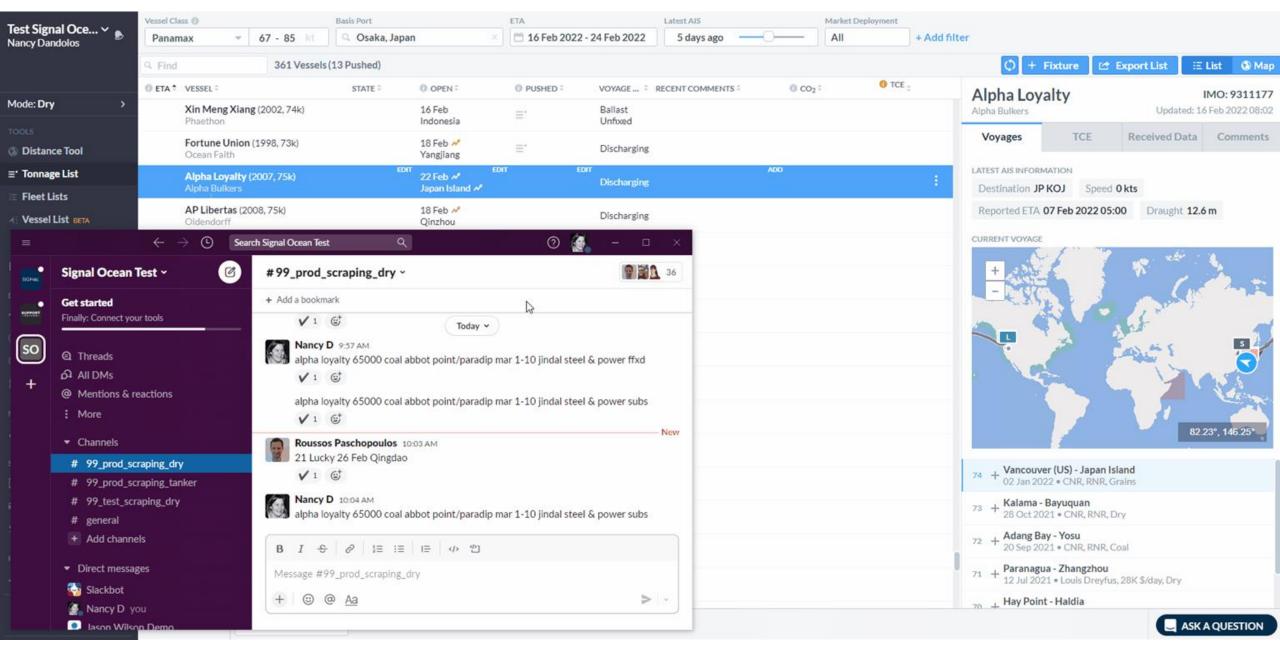
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Integrations / Real time response/ Alternative feeds

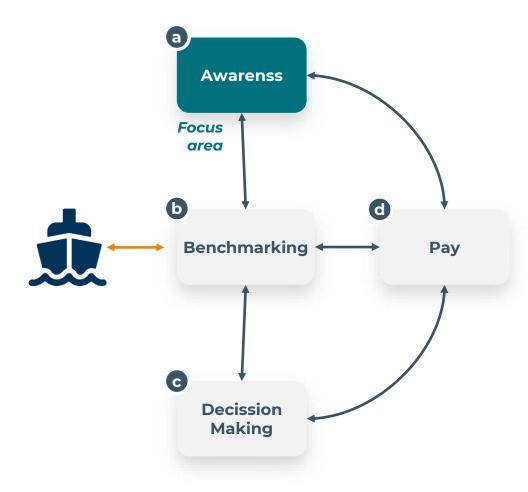


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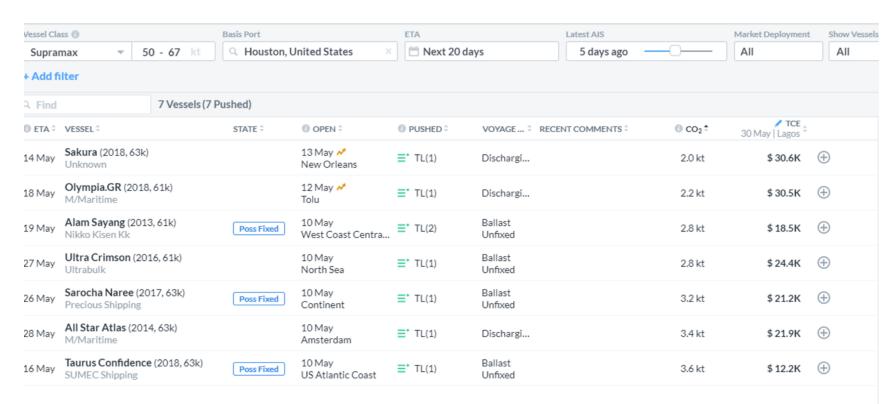
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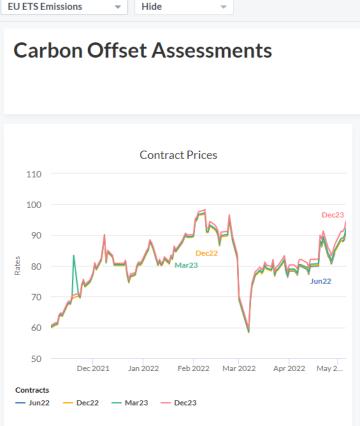
Decarbonization: Just the beginning!



- a Significant efforts in 2022 to assess where market participants currently stand
 - o What is our current foot print?
 - Start standardizing noon rerpots/ collection of data.
 - o Going beyond CO2 metrics -> CII, EEXI etc
- **b** How do we understand if we emmit the right levels based on:
 - Fleet profile
 - Trading patterns (Triangulation, Waiting times)
 - o Operational optimization (Slow steaming
 - Benchmark!
- But is it already part of the decision making?
 - o Do owners think twice to ballast the Atlantic?
 - Do charterers think twice when they select the most optimum vessel for their next cargo?
- d Who will pay? How? Voluntary vs non Voluntary schemes?
 - · How quickly will freight absorb carbon emissions costs?
 - Part of the recaps?

Decarbonization: Just the beginning!





EXPIRED CONTRACTS



