KAPPA OFFSHORE SOLUTIONS
MARINE OPERATIONS SERVICES

KEOS

κοτος (Ancient Greek) : query, questioning
Κοτος : Titan god of intelligence and farsight

Business Intelligence Software - Seismic Vessels Safe Capacity Assessment
Seismic survey cost optimization

BACKGROUND

Kappa Offshore Solutions has delivered business intelligence services to major actors of the seismic industry since 2013. Our company first proposed the concept of vessel safe towing capacity, defined as the maximum number of streamers a given vessel can tow safely for a given seismic configuration (streamer length and separation).

Proprietary algorithms were then designed to assess such safe capacity based on an evaluation of a vessel's deck arrangement and propulsion plant capabilities versus the hydrodynamic forces induced by the seismic towed equipment.

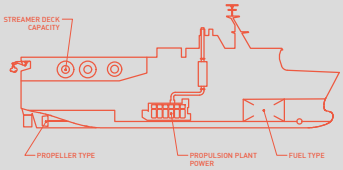
The relationship between safe capacity and maximum productivity of seismic vessels was further modeled taking into account critical drivers such as minimum turn radius achievable or seismic equipment maintenance downtime for example.

A thorough vessel and seismic configuration costing model was eventually developed, giving access with unmatched accuracy to overall survey cost estimations. A variety of key performance indicators were computed as well, such as cost per square kilometer of 3D seismic data, or total survey CO2 emissions for example.

Keos software relies on a unique proprietary database developed by Kappa Offshore Solutions encompassing:

- Main technical and economical characteristics for each vessel of the global 3D fleet.
- Precise hydrodynamic properties of an extensive library different seismic towing configurations.

CORE PRINCIPLE

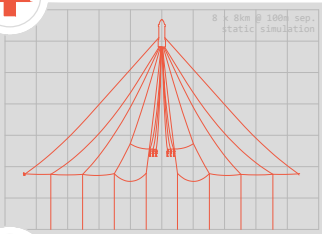


VESSEL SPECIFICATIONS

Global 3D seismic fleet technical database (70 x 3D vessels available)

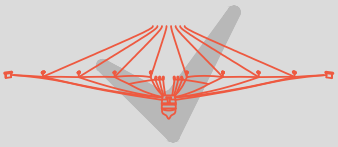
SEISMIC CONFIGURATION MODELING

Seismic configurations hydrodynamic models library (ca. 100 x configurations available)



SAFE TOWING CAPACITY CHECK

Assessment of maximum practical streamer count a vessel can tow for a given streamer length & separation



VESSEL AND SEISMIC CONFIGURATION COST MODELING

Automatic calculation of most cost and productivity parameters

SURVEY COST OPTIMIZATION

Visualize up to 5 scenarios simultaneously

FEATURES

FLEET TRACKING

KEOS includes graphic AIS position tracking of the global 3D fleet to help evaluating mobilization costs.

VESSEL SPECIFICATIONS

KEOS' vessel database is fully accessible, offering instant visualization of relevant technical characteristics of each 3D seismic vessel. The interface provides a large choice of selection filters in order to identify easily the most interesting vessels for a given survey.

MARKET DATA

KEOS' analytical interface enables to sort, rank and filter the 3D vessels depending on criteria such as safe capacity, age of vessels, operators, vessel status, etc. It provides up-to-date 3D seismic market key indicators (such as supply-demand curves for example) with unmatched accuracy.

SURVEY COST OPTIMIZATION

KEOS proprietary algorithms automatically compute most cost and productivity parameters such as vessel rental/depreciation costs, fuel consumption, technical downtime and turn radius for example. It takes just a few clicks to compare up to five different vessel/configuration scenarios, get an accurate overview of 3D survey costs, and determine most competitive options.

NEWS CHANNEL

As a comprehensive business intelligence tool, KEOS also provides an extensive industry news flow. This is the news flow Kappa Offshore Solutions support team uses on a daily basis to ensure that our vessel specifications database is constantly updated as vessels are stacked, upgraded, delivered, scrapped, etc.

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WEB : www.kappaoffshoresolutions.com
E-MAIL : contact@kappaoffshoresolutions.com

1 rue de Donzac
64100 Bayonne
FRANCE
+33 5 59 20 57 13

88 bis boulevard de la Reine
78000 Versailles
FRANCE
+33 9 72 47 78 08