

# Marine terminal design and simulation

Enable all stakeholders to optimize vessel calls

**Introducing Körber's cloud-based scheduling application for ports and terminals. Our marine terminal design and simulation application is based on a unique algorithm that enables everyone, from operations managers to mooring teams, to optimize vessel calls.**

#### **Scheduling, demurrage and supply chain challenges**

Logistically, scheduling vessels into and out of marine terminals is a highly complex undertaking. Today's ports and terminals face a broad range of challenges within a very dynamic market, especially the oil and gas industry.

**Demurrage** – Levy charges imposed on waiting vessels regularly run into millions of dollars for many shipping companies.

**Deeper data required** – As more and more organizations digitize their supply chains, there's a need for greater insights and visibility.

**Green efficiency** – Within the shipping industry, companies must adopt greener procedures, particularly when it comes to fuel consumption.

**“I've had over 28 years' experience of marine-side oil terminals. The day-to-day issues a marine terminal faces can be anything from weather to shipping, port authority constraints, volume of traffic and shortage of pilots, etc. All these things must be considered when you're scheduling shipping.”**

**Julian Brown**

Consultant, Port Plus Operations Consultancy



## Key benefits

#### **Manage multiple challenges**

The solution is driven by our proven algorithm, which manages a range of challenges to ensure safe passage of ships, whilst optimizing the use of your available infrastructure and key resources. This algorithm factors in a broad range of data covering factors such as tide, vessel size, cranes, inventory, traffic and so forth.

#### **Improve vessel tracking**

You'll have accurate information on vessel positioning and ETAs, plus the ability to monitor each stage of the call – from pilot on board to cargo transfer progress and pilot disembarkation. All this will help you to manage the call lifecycle, increase supply chain efficiency and reduce demurrage.

#### **Mitigate risk to maximize safety**

Users can easily combine a broad range of data such as maritime conditions and infrastructure constraints with vessel tracking to mitigate risk and ensure safer, more productive vessel calls. Vessel information can be securely accessed by the port community via an interactive planning board.



## Better forecasting to optimize efficiency and reduce cost

With our leading berth scheduling and simulation application, used by major terminals and ports around the world, you can quickly and easily increase berthing efficiency and generate a competitive advantage.

Our software will help you to reduce waiting times and increase cargo transfer rates, while ensuring your terminal's service levels are adhered to.

We've developed an innovative algorithm, refined over 20 years, that will give you access to more data across the supply chain. This will help your employees to gain a deeper understanding of things like market forces and a whole host of other factors to better predict the arrival and departure times of vessels.

From an environmental standpoint, the longer a vessel is in port, the greater the levels of pollution. At Körber, we advocate the concept of slow steaming, whereby if berth space availability is delayed, the vessel slows down its engines to burn less fuel on the

journey and arrive later. By providing a reliable vessel schedule, terminals can move away from a first-come-first-served approach to improve service levels while minimizing the impact on the environment.

**“Scheduling vessels into and out of terminals is an extremely complex and time consuming task, with all the factors you must consider. Körber’s mission is to optimize your infrastructure and move more products across the berth in a safe, efficient and productive way.”**

**Simon Shore**  
Körber

### The Körber difference

While our competitors provide manually driven planning boards based on spreadsheet-style Gantt charts, Körber's scheduling algorithm provides a much more effective way for your schedulers to optimize vessel calls, increase the amount of cargo you transfer, and more accurately track and schedule all resources to create a dependable, efficient berthing schedule.

## Our solution improves port performance

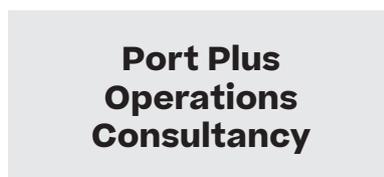


## Our solution in use



### Port Taranaki

We recently developed a solution for this major New Zealand port. The delighted client praised Körber for our “commitment, attention to detail and passion throughout the entire project.”



### Port Plus Operations Consultancy

This consultancy represented a client who needed to replace manual paper-based systems with a digital solution that would capture and manage all the terminal's constraints.



### Associated Petroleum Terminals

Körber delivered a dynamic change management tool that provided this company with an extremely easy to use window into the business.



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