



Case Study

Pacific National



Synchronize train, terminal and vessel operations with industrial mathematics.



### Efficient Planning

Automated planning processes from hours to a few minutes.



### Unlocking Potential

Increase in effective asset utilization.



### Maximizing Output

Increase in throughput.

## Increased profitability and throughput for rail-based supply chains.

### THE CUSTOMER

Pacific National is one of Australia's largest rail freight businesses and operates in all mainland states and territories. Pacific National rail services include bulk freight (coal, grain, steel, ore), intermodal containers (domestic and import-export), and specialized services such as 'hook and pull' for long-distance passenger trains.

RACE has dramatically reduced planning timeframes and substantially increased effective asset utilization.

### THE CHALLENGE

Pacific National operates a fleet consisting of over six thousand dedicated coal cars and six hundred locomotives, providing rail services in seven different coal chains on the east coast of Australia. Every week, over six hundred train journeys need to be planned and scheduled to service varying customer demand and commercial priorities. These journeys are planned based on commercial priorities, track access, unit availability and maintenance, crew considerations, load point and terminal maintenance. Managing these operations efficiently requires the continual optimal utilization of rolling stock assets, making planning dynamic operations of this scale and complexity very difficult. Pacific National was looking to revolutionize their existing time-consuming manual planning processes.

### THE SOLUTION

In close consultation with their centralized planning team, Deswik was able to rapidly deploy RACE, a sophisticated numerical optimization-based decision support tool used to solve cargo assembly planning and product delivery problems for complex rail based supply chains.

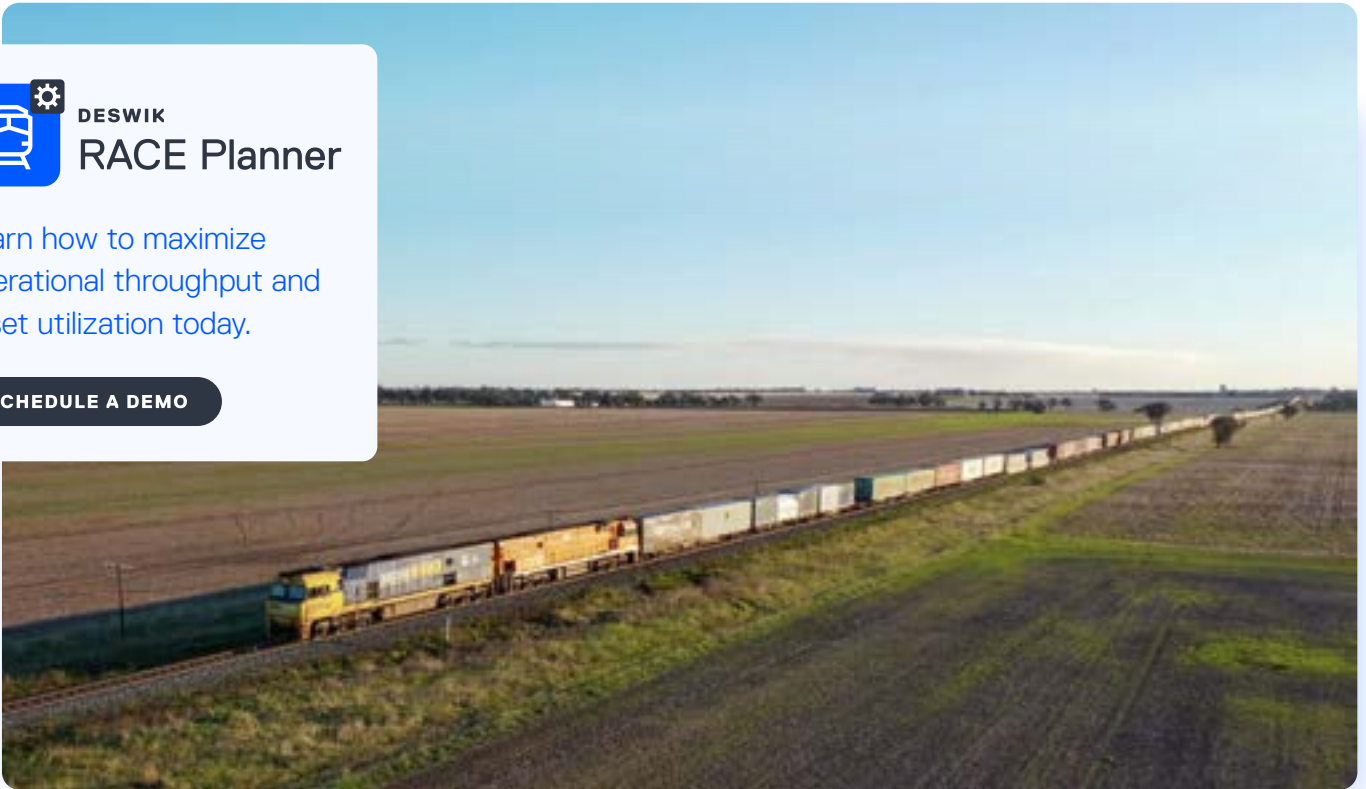
Pacific National can now automatically produce optimal plans in minutes, allowing them to configure and compare multiple scenarios in the time it took to produce a single manually generated solution—exploring “what-if” type scenarios, such as: What if we add in an extra consist? What if commercial priorities change? What is the impact of crew considerations? When is the best time to undertake rolling stock maintenance? The company explored options such as third-party coal purchases and optimized transport choices, providing a robust basis for future strategic decisions.



## DESNIK RACE Planner

Learn how to maximize operational throughput and asset utilization today.

[SCHEDULE A DEMO](#)



### THE BENEFITS

RACE has dramatically reduced planning timeframes and delivered a substantial increase in effective asset utilization helping improve the profitability of Pacific National’s bulk freight operations. It enables Pacific National to collaborate more effectively with other coal chain stakeholders and has resulted in improved levels of service for their customers.

### INITIAL DESIGN TO DELIVERY: 7 WEEKS

