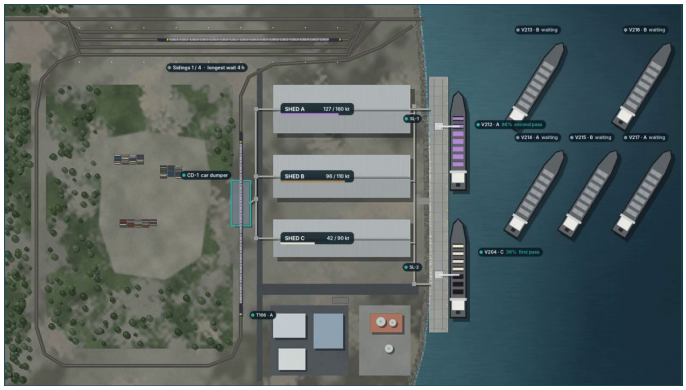
Shared Bulk-Export Terminal

For a shipper moving into a shared terminal, the question is simple: which commercial terms actually protect its operation, and what are they worth?

A bulk-export terminal has to coordinate rail arrivals, stockyard inventory, equipment and vessel schedules.

When that terminal is shared across customers and commodities, competing demands can disrupt shipments and put upstream production at risk.



Integrated terminal operating analysis

Business challenge	A shipper was moving into a shared port operation and wanted to protect its shipments and upstream production. It needed to know whether the commercial terms proposed by the port operator would do that.
MISIM solution	Our integrated model ranked the proposed commercial terms by their impact on the shipper's operation. As negotiations moved, we also quantified each concession the port operator offered, so the shipper could negotiate from an informed position.

KEY FINDINGS

Demurrage
$7.5M
Potential annual reduction

Terminal capacity
3%
Potential capacity shortfall identified

Mine production
$100M
Potential NPV exposure assessed

Integrated rail-to-vessel model scope

RAIL → UNLOADING → STOCKYARD → BERTH → VESSEL

Rail & unloading

Train arrivals, shared trackage, crew handover, unloading sequence and priority rules.

Storage & reclaim

Stockpiles, direct-hit opportunities and equipment washdown.

Berth & vessels

Berth sequencing, shiploading sequence and vessel queue priority.

Detail & variability

1,000+ trains and vessels a year. 30+ handling assets, with downtime and metocean.

Trains, stockyard and vessels were modelled together, including competition for shared unloading and handling equipment.

The model captured competition for yard space, sequencing from staging tracks to unloading spots, and time-based priority for trains and vessels.

Sensitivity runs tested rail service, priority rules, vessel handling requirements and third-party traffic.

Key takeaway	At a shared terminal, contractual priorities can matter as much as physical capacity. Simulation lets a shipper test service terms and guarantees before taking on the commercial risk.

KEY-PERSONNEL EXPERIENCE
Yes | MISIM project team

MISIM CORPORATE ENGAGEMENT
Yes

CLIENT
Confidential shipper

MISIM corporate project experience in integrated bulk-export terminal logistics.