GullsEye
KEY TO PRODUCTIVITY

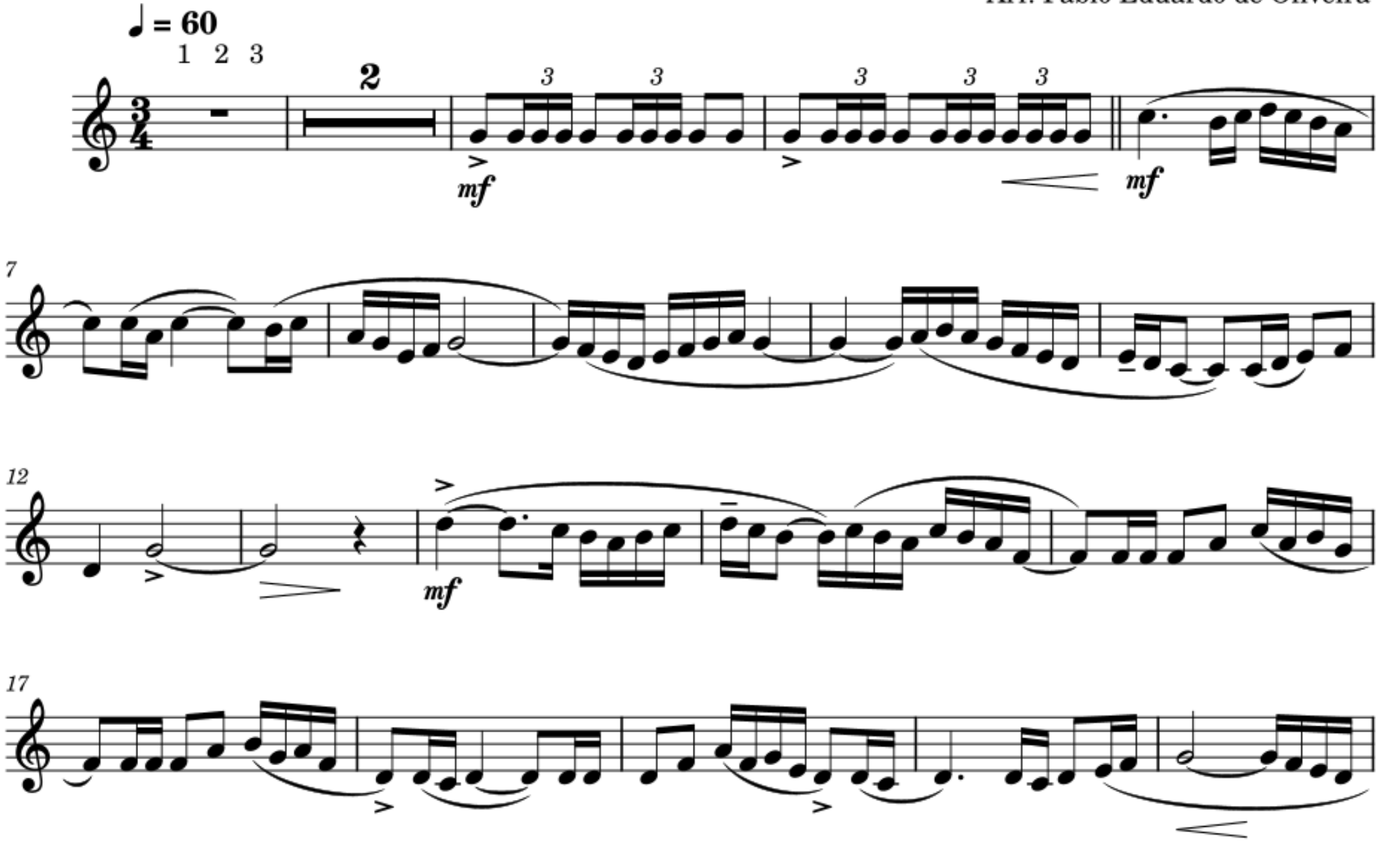
Utilization of Micro Algorithms & AI for Optimizing Terminal Operations

Violin

Bolero

By Maurice Ravel

Arr. Fabio Eduardo de Oliveira

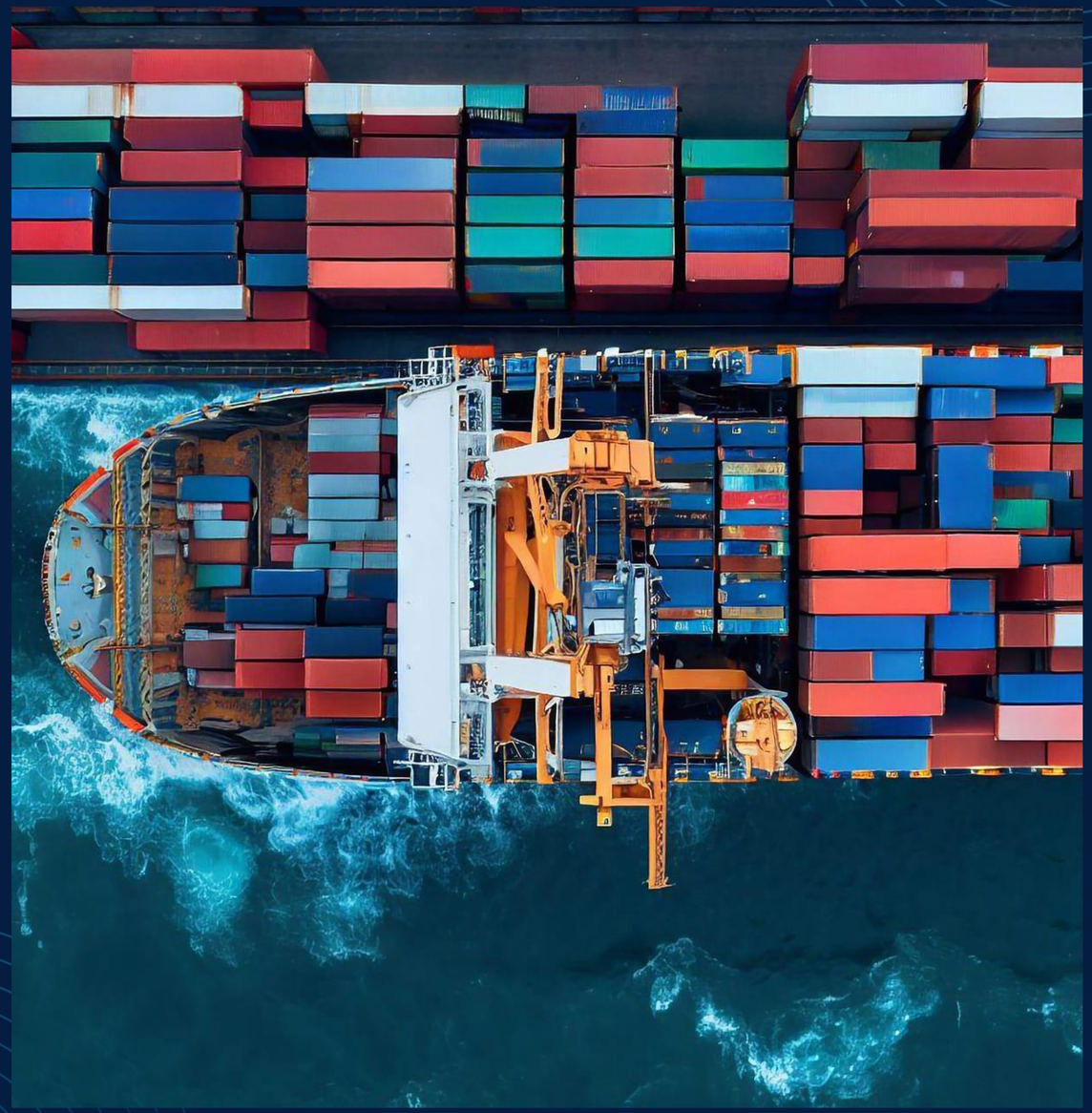


SOLUTION

- A musician skillfully playing an instrument faces challenges as layers of melodies are added.
- Using a single tool for multifaceted tasks leads to inefficiencies and errors, disrupting operations.
- Adding new functions makes compositions more complex, requiring continuous improvement.
- The instrument becomes bulkier and less pleasant to use.

THINK DIFFERENT

- Conducting an orchestra, collaborating with experts to orchestrate solutions effectively
- Hearing each instrument separately and noticing errors
- Operating like a conductor, directing the orchestra
- Resulting in perfect harmony



CHALLENGES OF TERMINAL OPERATIONS

Scarcity of Resources
Geographical limits
Expensive equipment

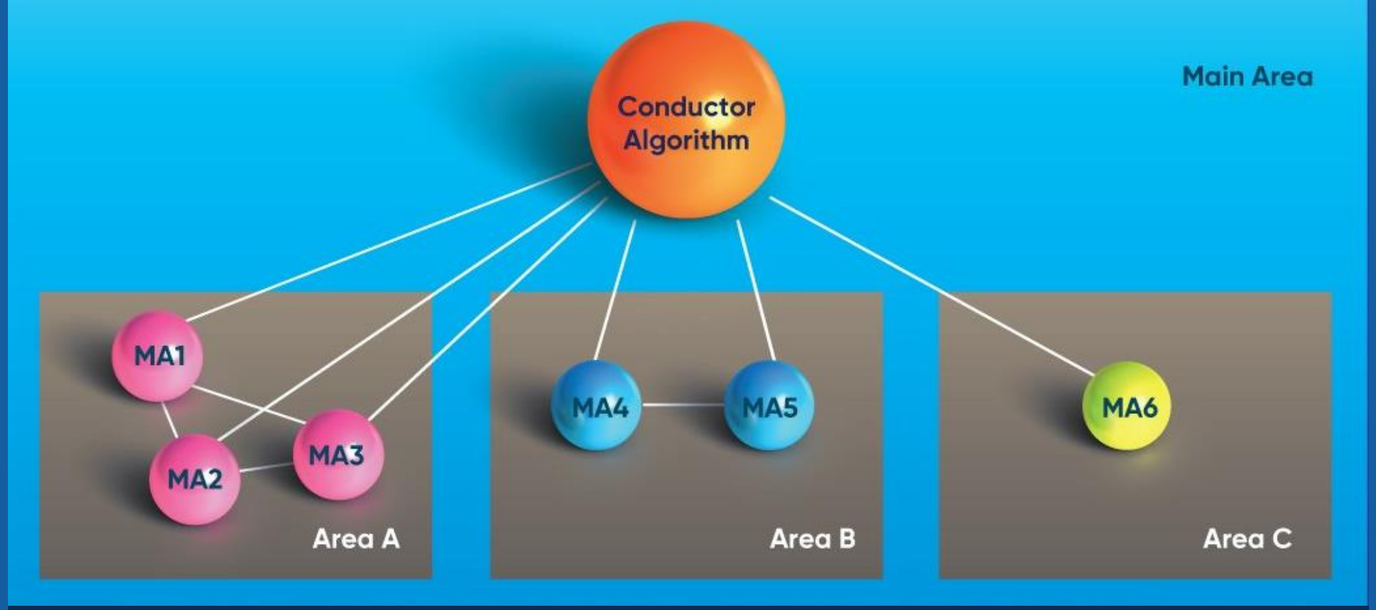
Need For Speed
Manage heavy container traffic
Increase Container Turnover

Operating Expenses
Extra moves = Extra cost
Dislocated containers

Understanding the Big Picture
Manage overall operations
Manage cost & revenue

CHALLENGES OF OPTIMIZING TERMINAL OPERATIONS

- Difficult to manage and modify large and complex software structures
- Not adaptable or flexible
- Produces results slower
- Eventually turns into a bulky algorithm



THINK DIFFERENT:

MICRO-ALGORITHM ECOSYSTEM

- Micro-Algorithms focus on the small parts of a complex problem
- Under the control of a conductor algorithm
- Micro-Algorithms use the multi-thread platform
- Historical data interpretation, AI & machine learning

MICRO-ALGORITHM ECOSYSTEM

Advantages

- Simple to model
- Quicker response & more accurate results
- Less source demand

Challenges

- Unable to see the big picture

AI & ML

What Does It Provide?

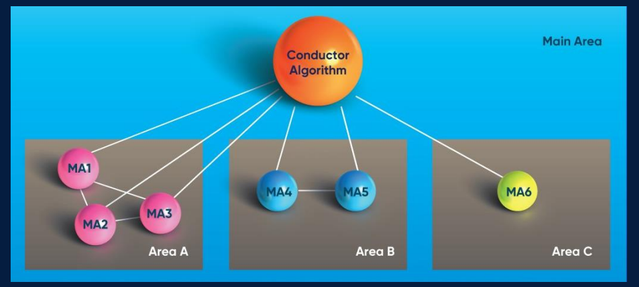
- Helps produce efficient modules
- Learns from the past & improves future decisions

Challenges

- Ports have complex operational challenges
- Much past-present data to be processed into AI
- Processing historical data requires huge resources

A Better Solution

- By creating a scalable environment by Micro-Algorithms, AI & ML can be used more efficiently



The Impact of Micro-Algorithms & AI on Terminal Operations

Standardization ensured by AI in port operations

Improve business operations & efficiency

Optimize management decisions

Enable quick & accurate decision-making for port operation predictions

Lower operational costs

Improve utilization of assets & profitability

THANK YOU!

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