

AI & Machine Learning: Realising its Full Potential

NEXT GENERATION DIGITAL TWINS:
INTEGRATING AI FOR ADVANCED
DECISION MAKING



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Director & Founder of RBS

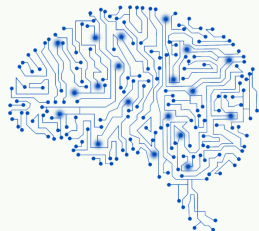


Intelligent 3D vs. the Twin Revolution

All the advantages of a TOS connected digital twin, and more

An Intelligent 3D Solution

- ✓ Can be used to pre-execute moves and for other operational purposes
- ✓ Has super intelligent capabilities to boost performance, evaluate moves and eliminate inefficiencies
- ✓ Ability to predict and resolve incoming problems
- ✓ Incredibly fast, light and accurate
- ✓ Can pre-run at over 100x the real-time speed



Pure Visualization Digital Twin

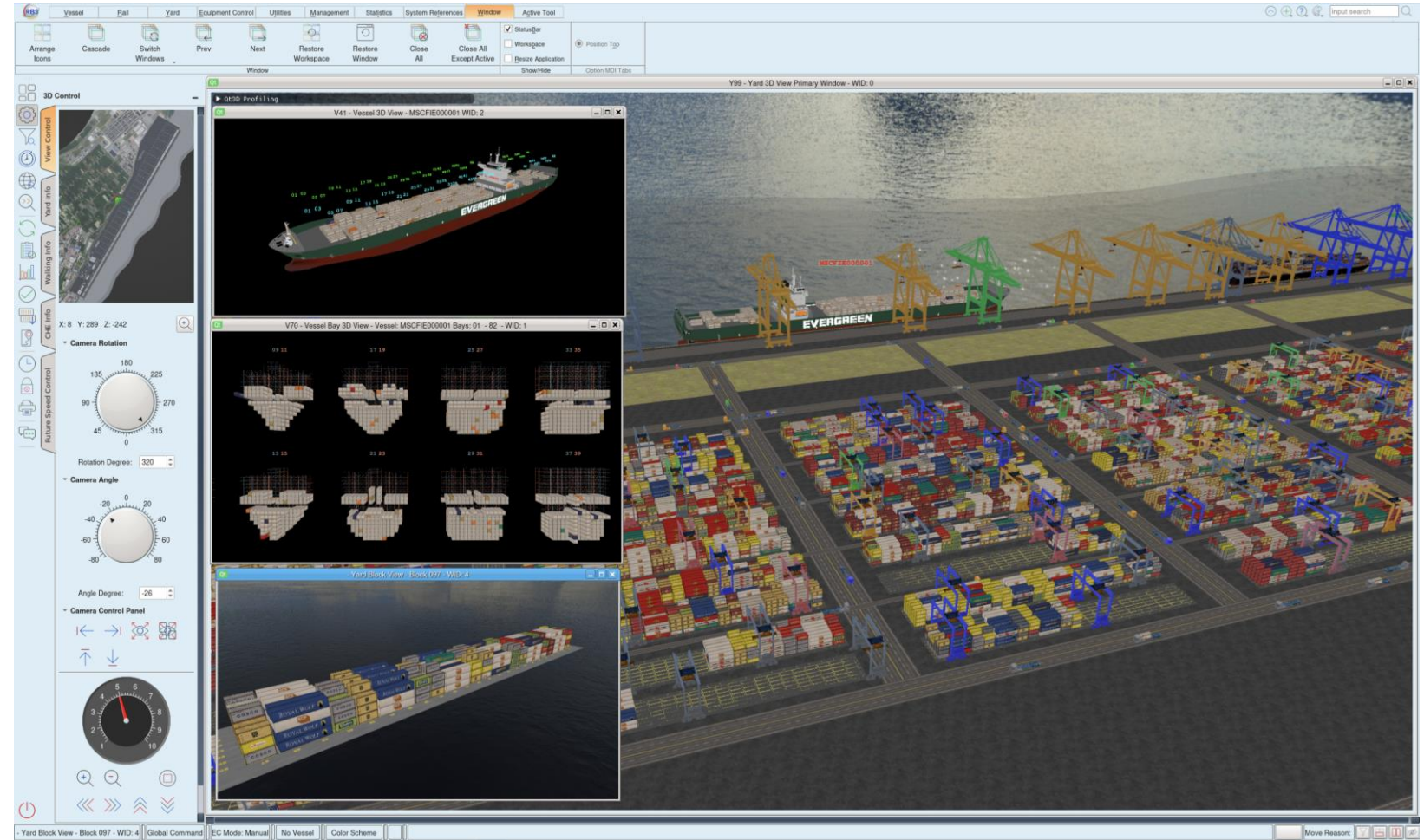
- × Limited use for operational purposes
- × Limited intelligent features that help with increasing performance or deal with inefficiencies
- × Cannot predict and see incoming problems
- × Often very slow and heavy
- × Can only run at the real-time speed



Inside the Mind of Intelligent Solutions



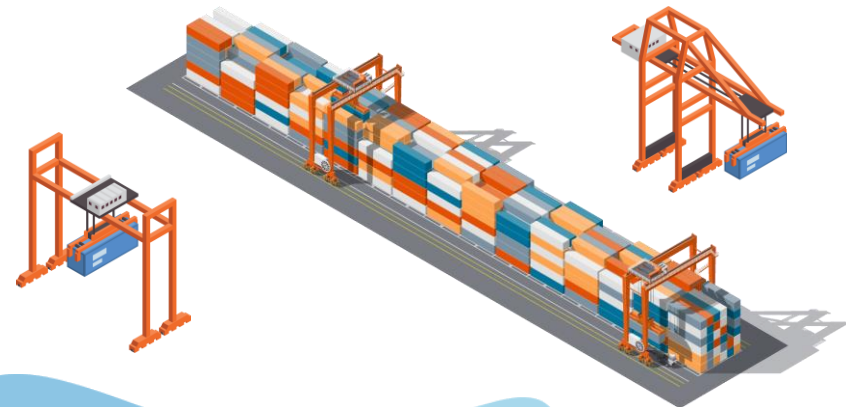
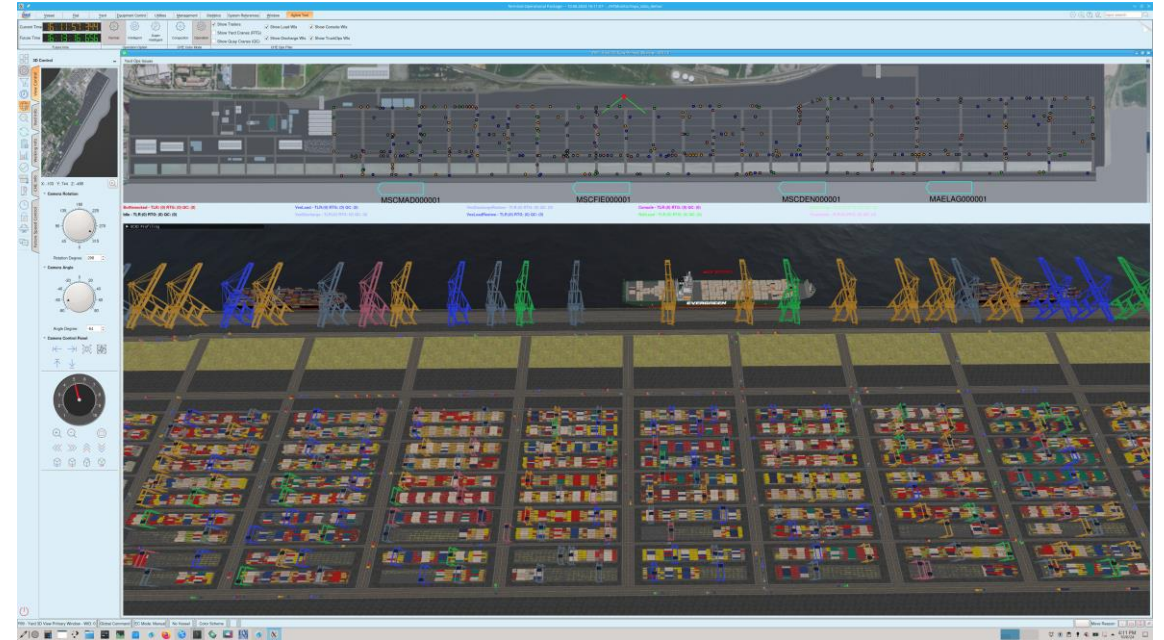
- An Intelligent 3D Solution is much more than just an average digital twin.
- These Solutions combines the digital twin concept with actual operational and executional features of AI to bring vast & unique benefits to terminals.
- The solution will also have Super Intelligent capabilities which allow it to predict and resolve incoming future problems.
- Hence, it becomes a tool to optimize and boost a terminal's performance in completely new ways for enhanced decision making



Intelligent 3D Solutions For Automation



- When the TOS is used in combination with Automation, the maximum benefits will be achieved
- The Intelligent TOS can more accurately predict and resolve issues before they occur because the reliable speed, distance, and overall accuracy of automated machinery, especially AGVs.
- Moreover, the optimized execution plans that are outputted by the TOS will be carried without human errors
- This results in PERFECTLY OPTIMIZED execution AT ALL TIMES



Why Terminals need Intelligent 3D Solutions

Where Vision Meets Execution

Common problems in a terminal



Congestion and traffic



Bottlenecks at blocks as trailers wait for service



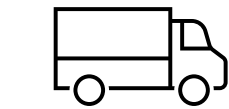
Delays in planning and problem solving



Crane Hang



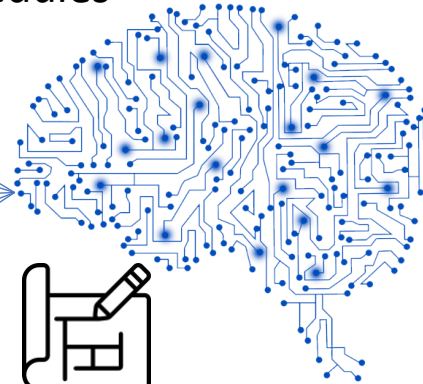
Unproductive move & Unladen Travel



Re-schedules



Re-routes

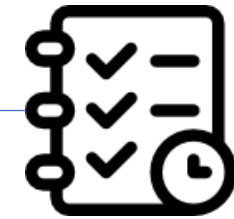


Re-plans



Re-assigns

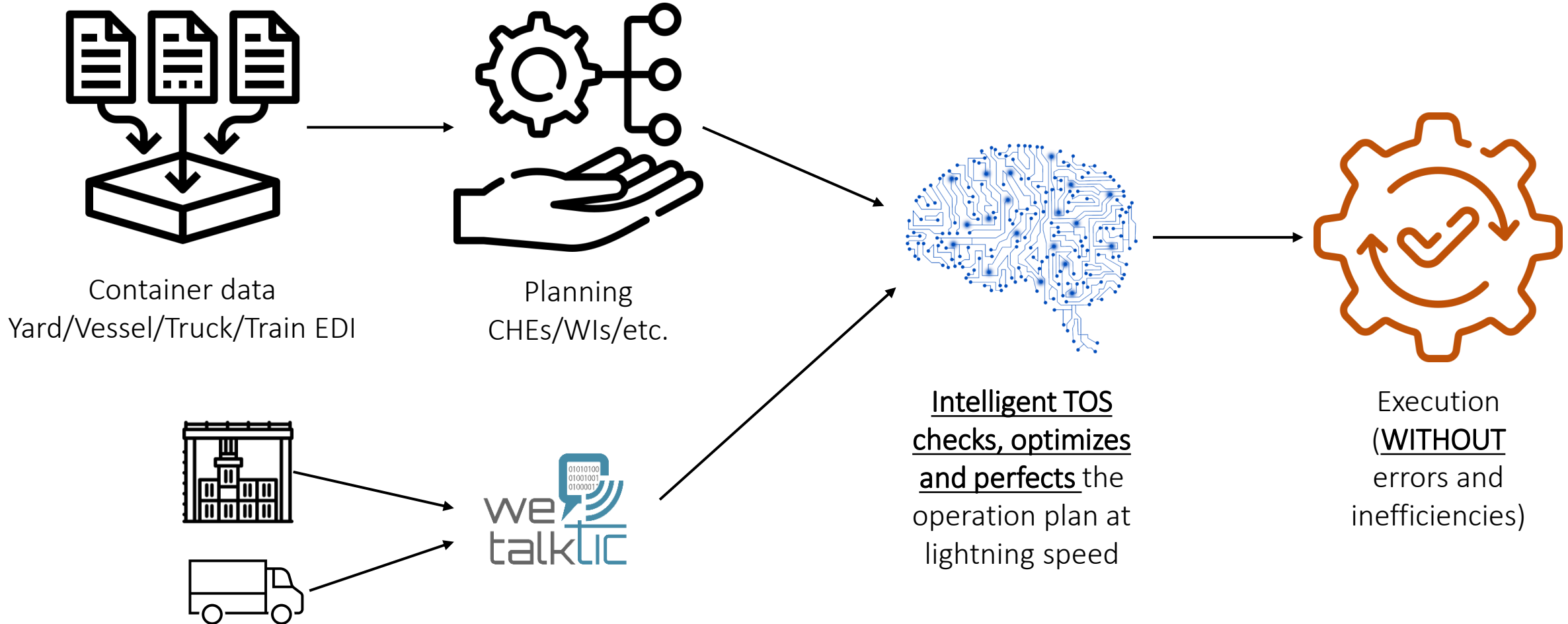
Intelligent 3D takes all these common problems and solves them by re-routing, re-planning, and re-assigning. The result is the best execution possible



An optimized execution plan with little to **NO Inefficiencies**

How Intelligent 3D solutions works

Where Vision Meets Execution



Intelligent 3D Solutions: Predict Problems, Prevent Disruptions



Analysis/Prediction



Planning & Optimization



Solution & Assignment

Note: the future time of 10 minutes ahead is given as an example only. TOS may look further ahead in time to resolve conflicts.

During execution, TOS is constantly looking ahead to resolve any possible inefficiencies. Furthermore, it is reactive to any changes that may occur. Hence, execution will **ALWAYS** happen in the **most effective way possible.**

Intelligent 3D Solutions: Intelligence in Every Dimension



Vessel Planner



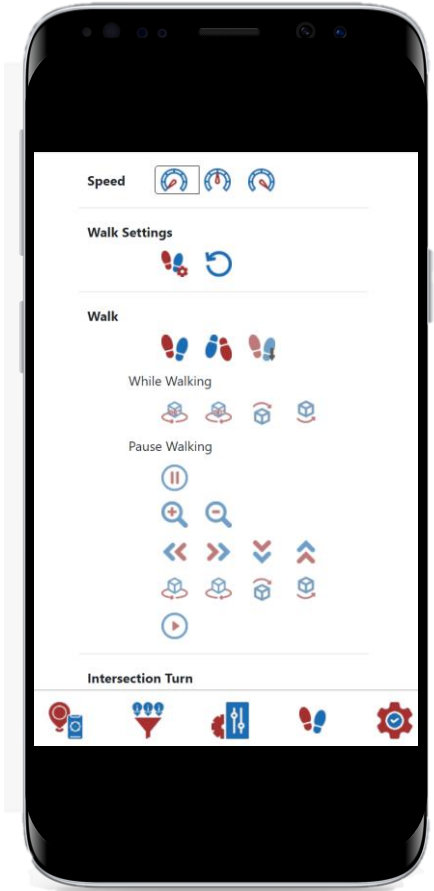
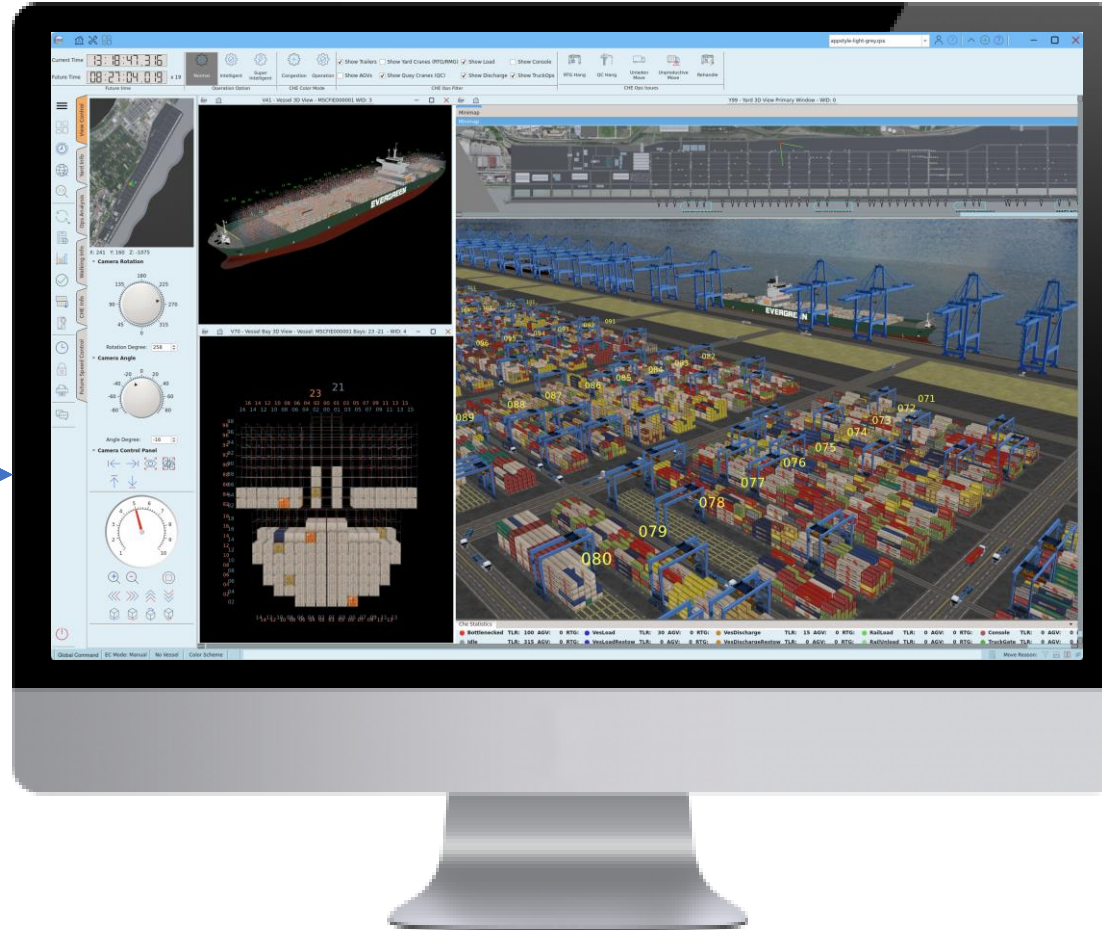
Yard Planner



Equipment Controller



Other Users



Management device



Next-Gen Decisions Powered by 3D Superintelligent Digital Twins



Realtime Business Solutions

Your Success Our Commitment

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Information Classification: General



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