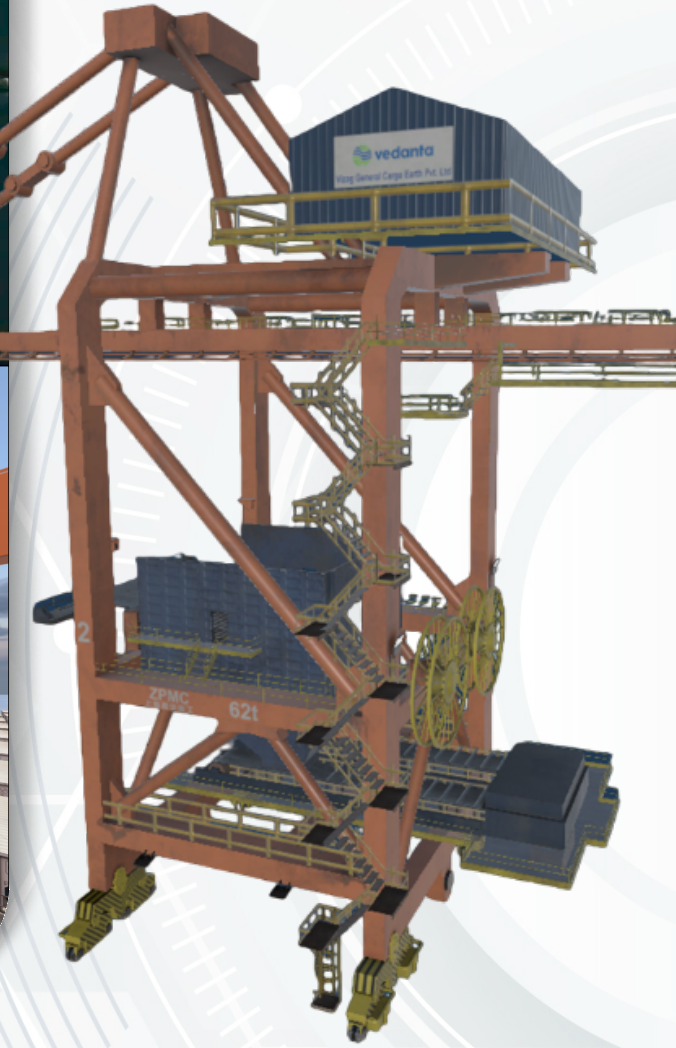


Cusmat's Immersive Skilling platform for Port MHE Skilling Metaverse



To help Enterprises Improve their

Productivity



Efficiency



Safety



At Cusmat

We leverage innovative **immersive technologies** to help **Industries bridge the skill-gap.**



VR Skilling System (Software + Hardware)

Equipments covered in Port Skilling Platform



Quay Crane



Yard Cranes



Reach Stacker



Ship Unloader

Problems solved

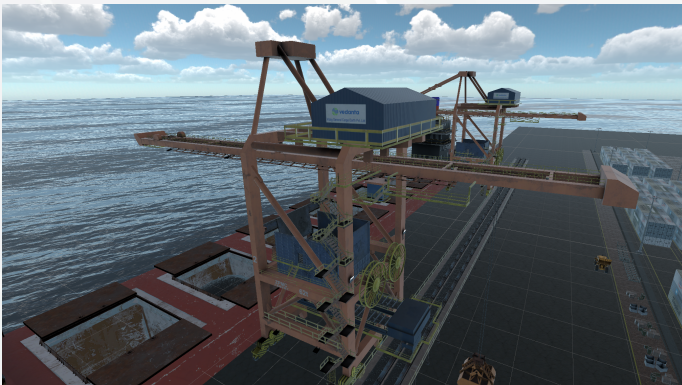
- Low productivity in Crane operators (TEU/ hr)
- Safety issues in Container handling
- Operations in diverse weather conditions
- Ineffective Operator skilling methods
- Ship turnaround time

Metrics Impact

- % reduction in collisions during container operations
- % increase in number of containers handled (TEU)/ hour
- % reduction in degree of swing
- Container placement accuracy
- Optimal Plath Following

Industrial Applications

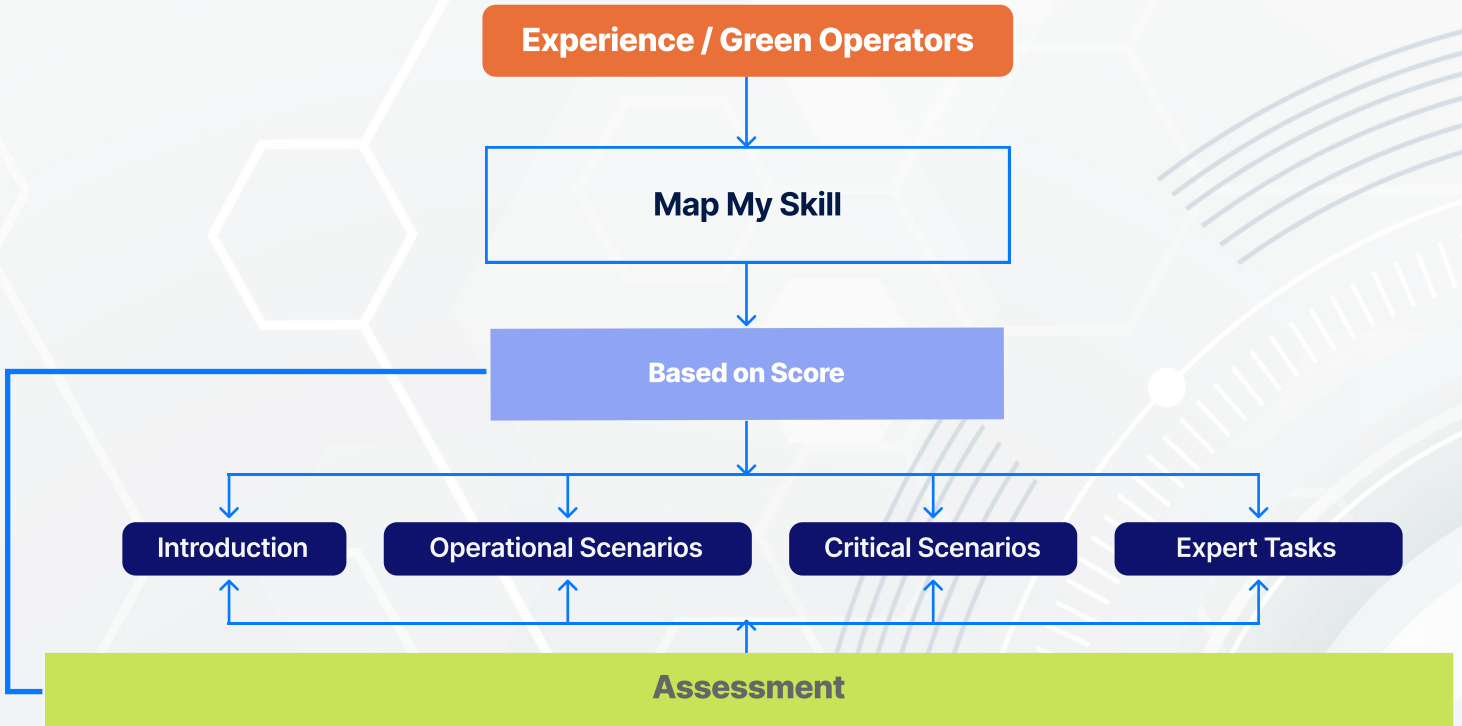
PORTS



ICDS



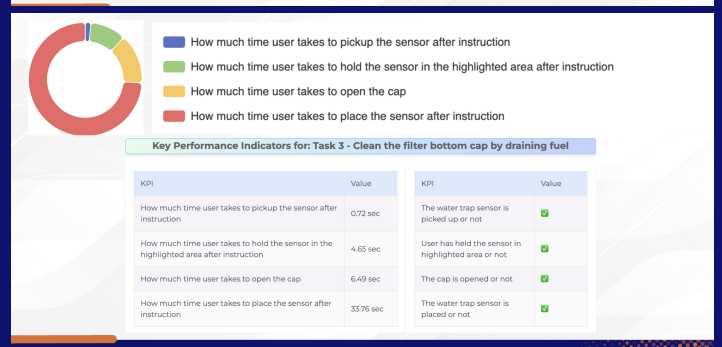
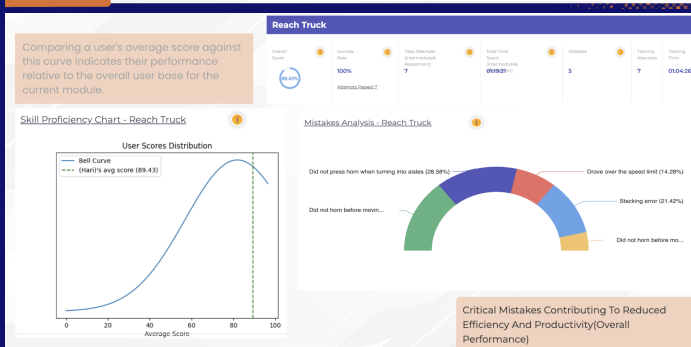
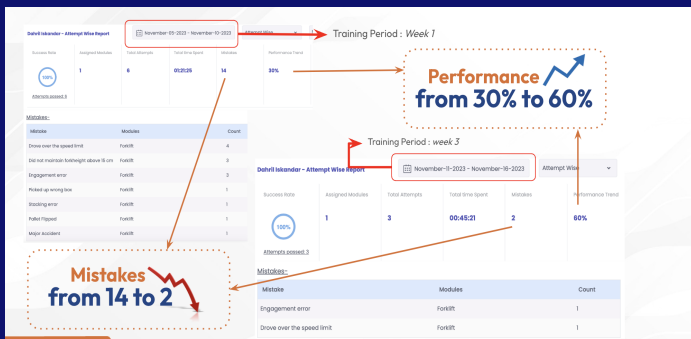
How it works ?



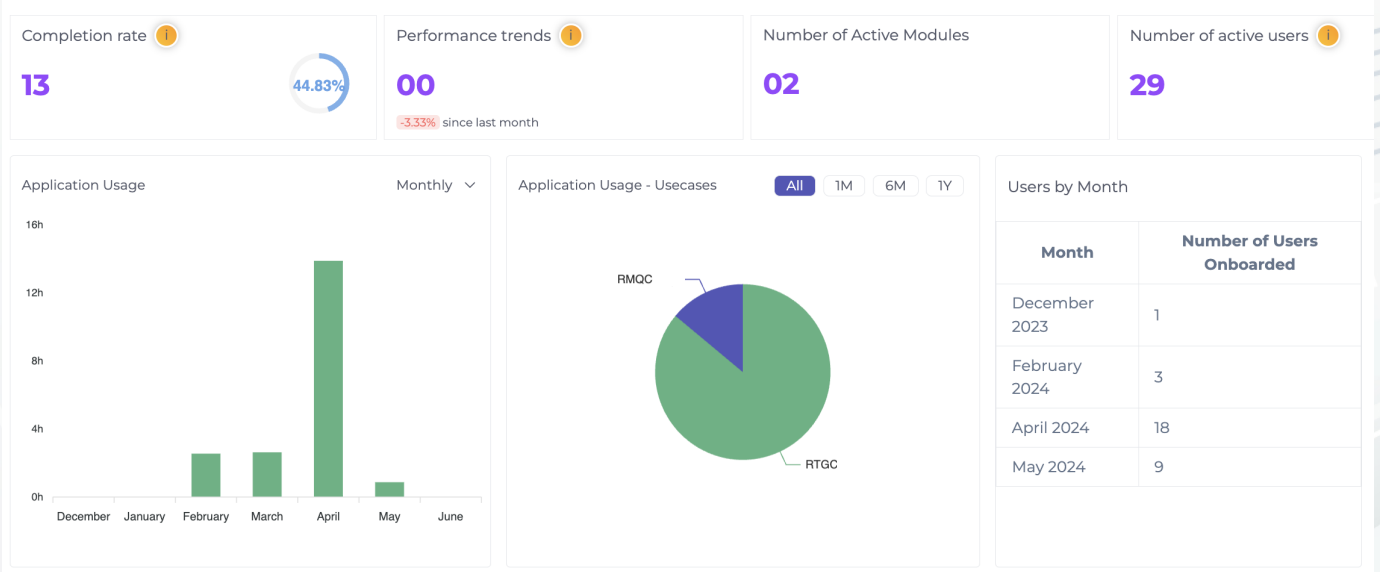
Embedded Analytics - Dashboard

KPI Configured to Identify skill gap

- Ideal vs Actual - Path
- Ideal vs Actual - Time
- Swing vs time
- Speed vs Time
- Stacking time and accuracy
- Safety SOP Adherence
- Spotting Accuracy
- Cycle Time



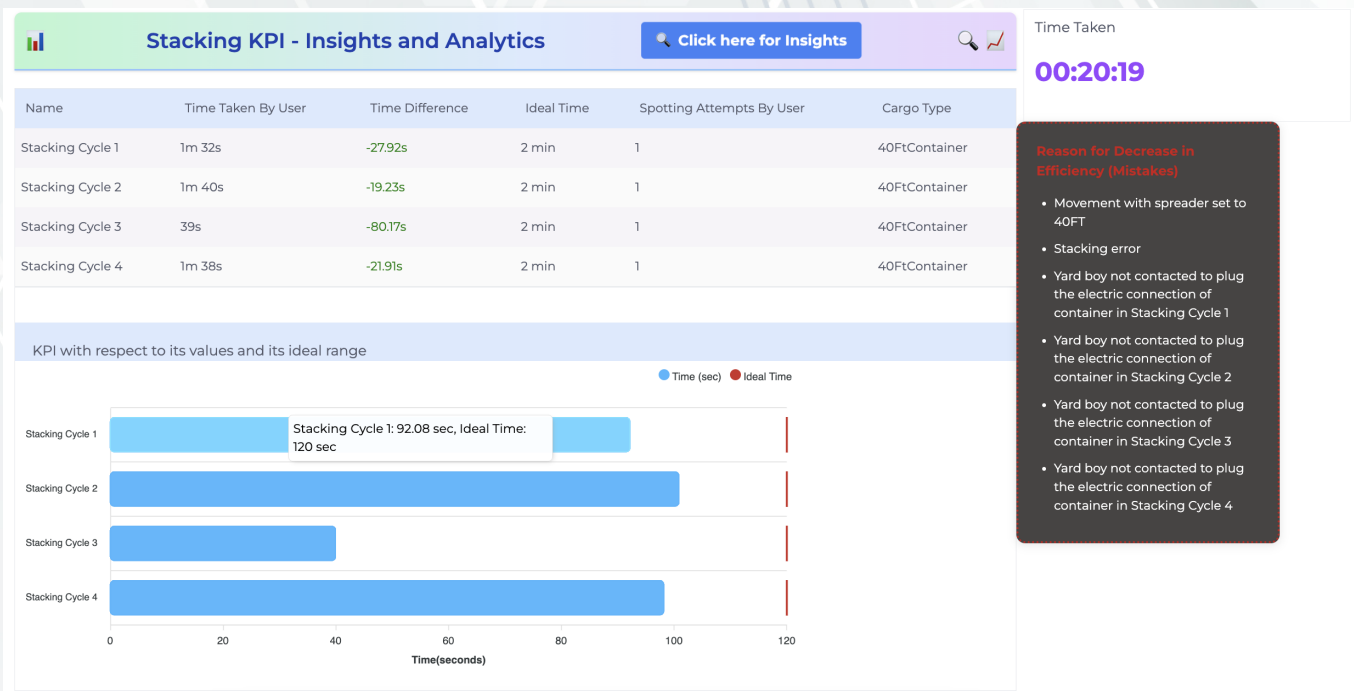
How Embedded Analytics Engine works ?



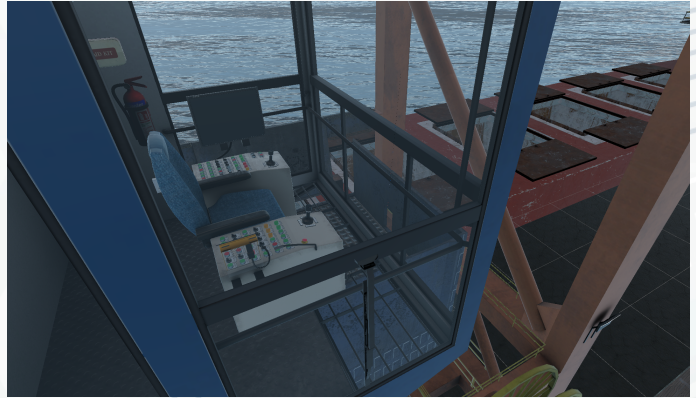
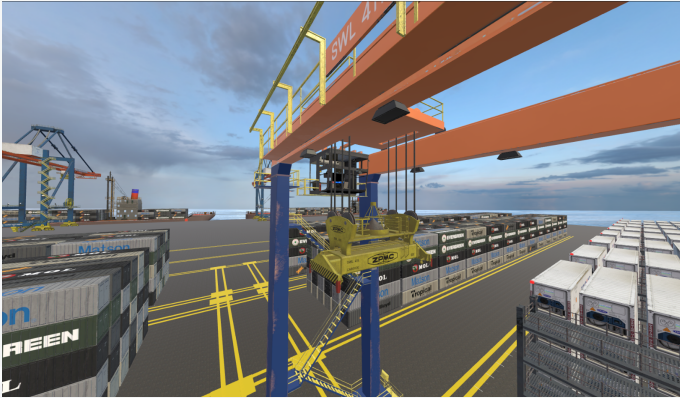
Providing a centralised view and summary of all active users, modules, application usage, and performance trends

Detailed user-report based on pre-defined KPIs

- **Comparative reports** can be generated for multiple users to compare their strengths and weaknesses.
- Providing visibility into **performance trends** and tracking **improvements in user skills over time**.
- A **scoring system** that can be configured based on technical skill/process **Key Performance Indicators (KPIs)** that aid in tracking operator skills and their **impact on operations (Productivity, efficiency and safety) and business**



Simulation for all kinds of Scenarios



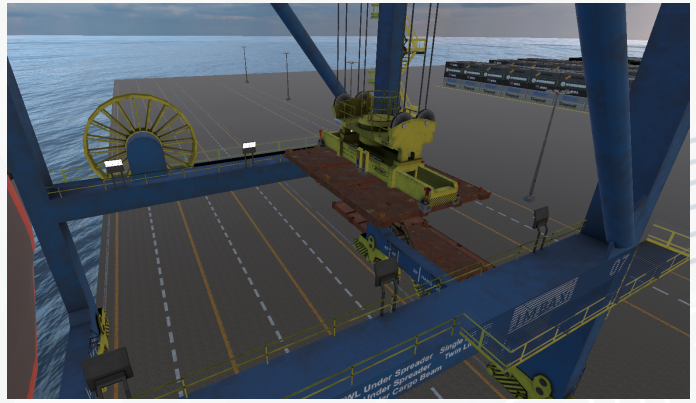
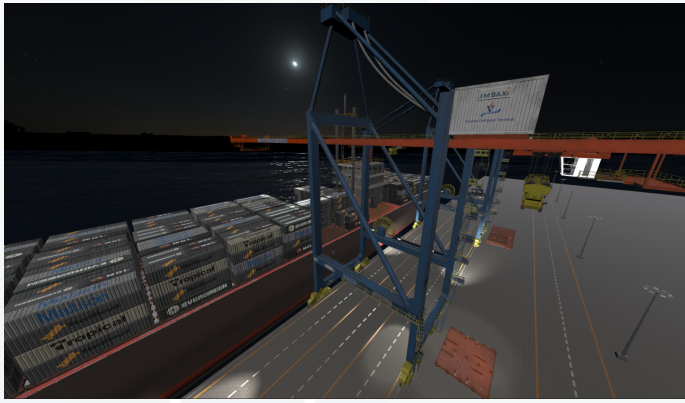
Basics:

- Introduction to cabin
- Pre-operational Checks
- Cabin Check
- Operating EOT Crane
- Basic movement and Controls



Operational Simulation

- Unloading 20ft (Upper Deck/Lower Deck)
- Unloading 40ft (Upper Deck/Lower Deck)
- Unloading of twin container + Memory Twin gap
- Moving and aligning Quay crane
- Container Spotting
- Yard Container Spotting
- Well Stowage from trailer /truck



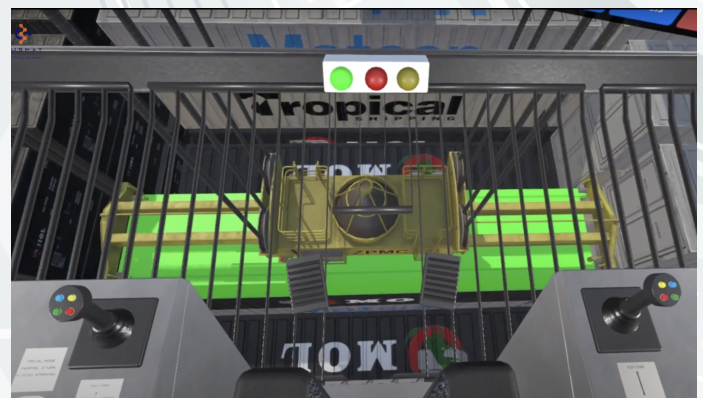
Critical Scenarios

- Operating in Wind and extreme weather conditions
- Hatch cover handling
- Breakbulk handling
- Unloading coal to specific area
- Night Scenarios



Accidental Scenarios

- Twist Lock failure
- Detached Containers to trailer
- Collisions
- Rope failure
- Clip Failure



Product Categories - Gantry cranes / RSTs

Topics covered	SkillEdge Start	SkillEdge Plus	SkillEdge Pro
Introduction to Machine/ Environment	Available	Available	Available
SafetyPre-ops Checks	Available	Available	Available
Container spotting (Spreader Operations)	Available	Available	Available
Loading & Unloading - Ship/ Trailer/ Yard	Available	Available	Available
Container handling (20ft)	Available	Available	Available
Container Handling (40 ft)	Available	Available	Available
Container Handling (Twin)	Not Available	Available	Available
Yard operations	Not Available	Available	Available
Reefer container handling	Not Available	Not Available	Available
Spin turn	Not Available	Not Available	Available
Operating At Night	Not Available	Available	Available
Operating in various wheather conditions	Not Available	Not Available	Available
Emergency Scenarios	Not Available	Not Available	Available

Product Categories - Quay Cranes/Ship unloader

Topics covered	SkillEdge Start	SkillEdge Plus	SkillEdge Pro
Introduction to Machine/ Environment/ Safety	Available	Available	Available
Pre-ops Checks	Available	Available	Available
Container spotting	Available	Available	Available
TTDS operations (Spreader Operations)	Available	Available	Available
Loading & Unloading - Ship/ Trailer/ Yard	Available	Available	Available
Container handling (20)	Available	Available	Available
Container handling (40)	Not Available	Available	Available
Container handling (Twin)	Not Available	Available	Available
Deck Operations	Not Available	Not Available	Available
Breakbulk Handling	Not Available	Not Available	Available
Operating at Night	Not Available	Not Available	Available
Operating in Stormy/ High winds/ Thunderstorms	Not Available	Not Available	Available
Emergency scenarios	Not Available	Not Available	Available

Module not available

Module available