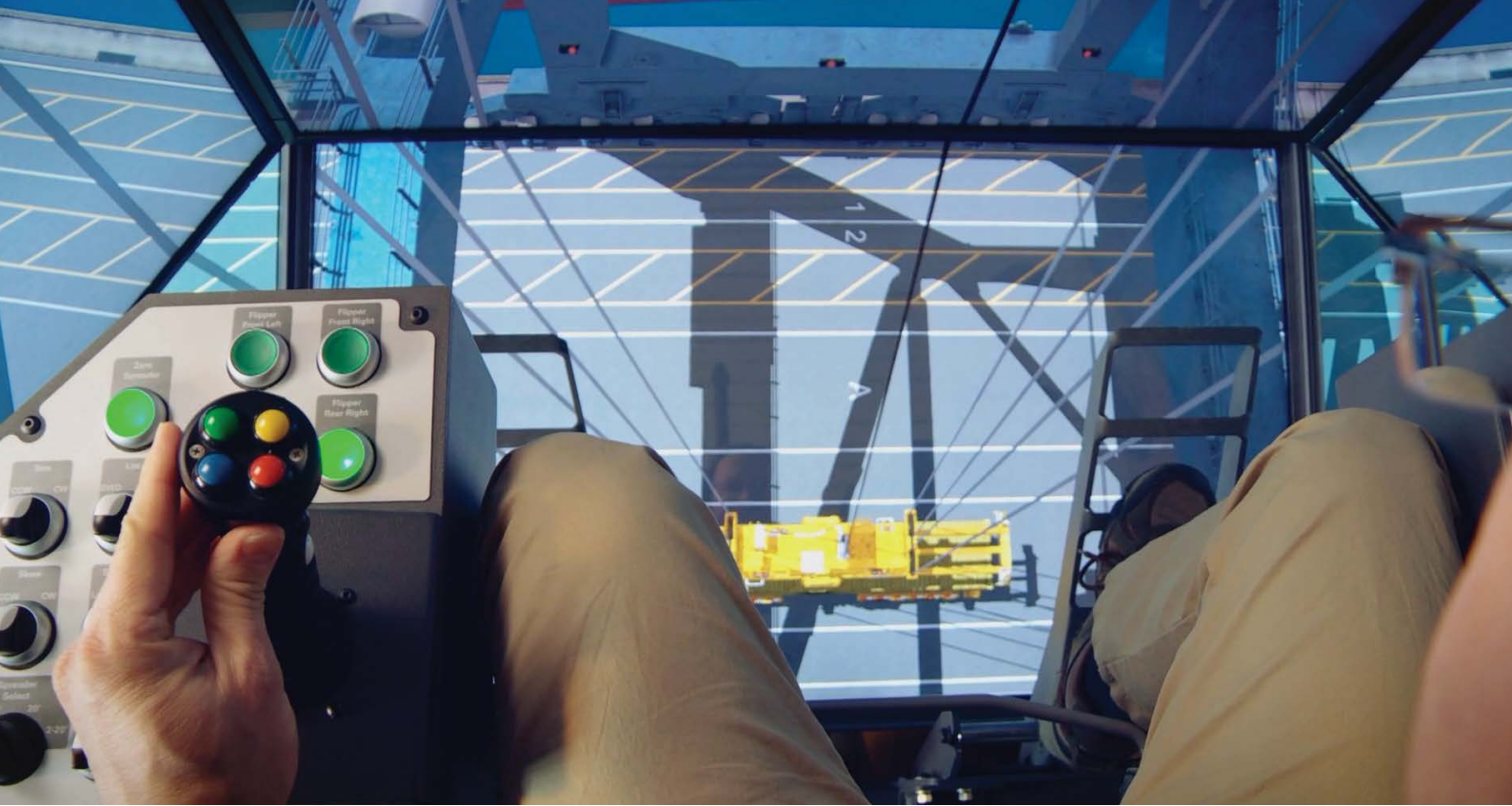


CRANE SIMULATION SYSTEM

Redefine Effective Crane Operations Around The World





LEADING-EDGE SIMULATION TRAINING

ST Engineering enhances port operations by adopting the latest technology in crane simulation. Addressing the modern needs of training and re-training in ports, construction and other heavy machinery, our crane simulation is your go-to solution for repeatable, realistic training.

Our crane simulation system offers extensive scenario-based, self-guided learning opportunities. The system is built to promote safe, efficient and effective work practices through simulation-based tools.

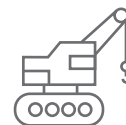
Our suite of solutions are suitable for:



Construction



Fleet owners



Heavy machinery



Lifting and port equipment



Remote Crane Simulation (RCS)

Enable port automation

More than 20 ports around the world have had their operations automated and the numbers continue to grow. Adopting the Remote Crane Simulator (RCS) enables a skilled workforce that operates remote cranes safely and efficiently.

Decrease training costs

Training with live machinery costs time, resources and productivity. By learning the procedures prior to using actual equipment, RCS helps to eliminate errors and reduce operator incidents.

Reduce workflow bottlenecks

Through simulation, potential workflow gaps can be quickly identified and solved, ensuring high productivity levels.



CABIN OPERATIONS SYSTEM

For customers seeking simulation-based training solutions for operators, we offer flexible hardware configurations that cater to any training requirement.

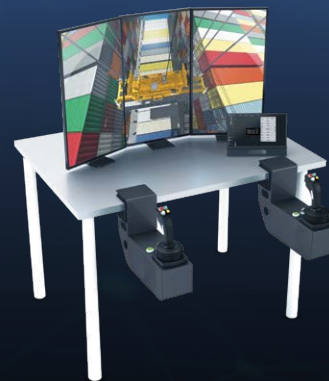
Vortex Master



Vortex Trainer



Vortex Advantage



The Vortex Advantage platform runs both port and construction equipment training packs, and provides a full range of training benefits:

- ✓ Modular equipment, plug-and-play and highly customisable
- ✓ Professional grade controls and operating experience
- ✓ Rotating display (3-screen option) and swappable controls
- ✓ Multi-platform adaptability. Ability to bundle with cranes or earth moving vehicles



Realistic Port Equipment Simulators



Our crane and port simulators are powered by CM Labs' high fidelity Vortex Studio real-time simulation platform, and incorporate other unique adjustable features of the mechanical engineering layer based on real data and real machines.

The simulated models are backed by a massive verification database that has been proven and validated by subject matter experts.

True-to-life simulation



The crane simulator training pack accurately reproduces equipment behaviour, based on load charts and specifications from crane manufacturers.

It simulates:

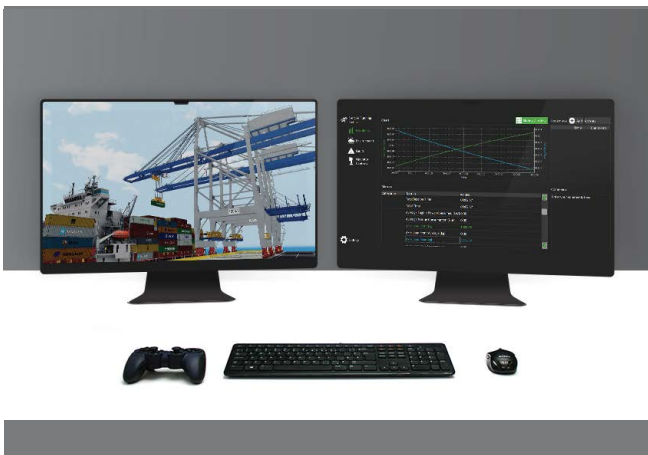
- Gantry, trolley and boom movement
- Spreader system, hoisting system and rigging
- Bulk handling
- Integrated machine control system
- Cable movement and mechanical stress
- Weather conditions

Basic Operations to Advanced Scenario-based Training



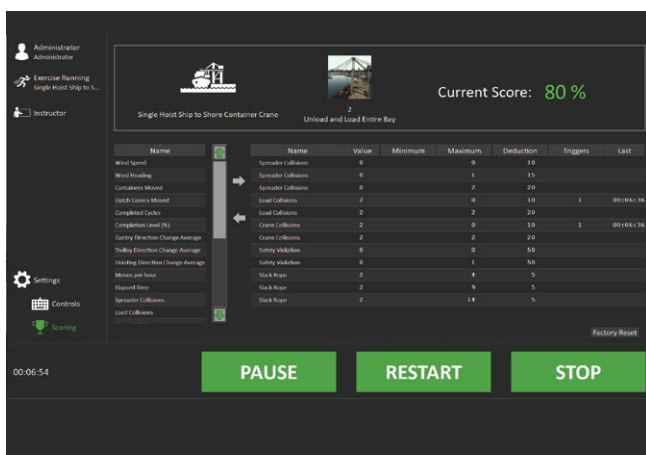
Training includes progressive learning programs from skills familiarisation to advanced loading and unloading techniques. Operators can learn how to manage a wide range of incidents and operational conditions such as machine faults, day or night times, weather and wind conditions.

Instructor Operating Station



The Instructor Operating Station (IOS) is an all-in-one solution for monitoring and assessing trainees. It offers smart 360 degree insights, operating metrics and performance data during the training session. The training solution gives trainees and instructors the ability to customize the scoring system and establish their own benchmarks.

Intelligent Training Assessment



Reports can be customized to highlight scores, including the instructor's bookmarks, notes and charts. The training system objectively documents trainee readiness, ultimately training a safer and more effective operator. It also helps improve the training focus of future training sessions based on the operator's assessment results.



BENEFITS

- Our customers have reported improvements in productivity and training standards.
- Exceeds training and operational standards by 40% **1**
- Operators are trained faster by at least 33% **2**
- Up to 150% increase in rate of successful operator training **3** and 50% higher operator readiness **4**
- Increased safety awareness and productivity in operators
- Faster refreshment of skills and procedures
- Faster emergency response
- Reduced training costs and risks
- Objective assessments supported by data analytics
- Easy to use for self-paced learning
- Easy to maintain

1 Flinders Adelaide Container Terminal

2 Ports of Auckland Limited (POAL)

3 DP World Melbourne, Australia

4 Multiple Projects



In collaboration with CMLabs, we provide solutions, maintenance and support services to address your crane simulation needs.

www.stengg.com
trainingsimulation@stengg.com

© 2021 ST Engineering Training & Simulation Systems Pte Ltd. All rights reserved.

DOP 0121



www.stengg.com/training-and-simulation