Welcome to ARI

ARI Simulation is a global leader in the production of sophisticated simulation and virtual reality training solutions for the marine, energy, construction, airport and defense industries.

Our simulators have been designed and built to meet all applicable standards recommended by relevant international statutory and industry bodies including IMO, STCW 2010, The Nautical Institute, OPITO, AMERC, IMCA and others. Our marine, offshore and crane products have been audited and certified to the highest Class A Standard by DNV-GL.

Developing customised solutions has always been one of our key strengths and we have created some of the most exacting simulator recreations of our clients’ own equipment, machinery, ships and geographies in the large number of customised simulator solutions we have delivered.

Our customer focus and attention to detail is reflected in our commitment to quality in everything we do.

Training people is your priority;
Making it possible is ours.
Crane Simulation

The ARI Crane Simulators provide a realistic reproduction of the visual, behavioral and operational of various crane types while making the operation of the simulator extremely simple and intuitive for trainees and instructors.

ARI offers a broad range of crane simulators for operational training in all essential aspects of container, offshore and bulk handling operations across various crane types including: QC (Quay Crane), RTG (Rubber Tired Gantry), RMG (Rail Mounted Gantry), SG (Ship Gantry), PC (Pedestal Crane), SC (Straddle Carrier), Mobile Telescopic Boom Crane, Tower Type Construction Crane, Floating Barge Crane, Offshore Pedestal Crane, Knuckle Boom Crane, Vessel Mounted Crane, and other client specific cranes and equipment types.

ARI has crane simulation solutions to suit all requirements and budgets, from low cost desktop installations through kit based portable multipurpose trainers and up to multiple PC, instructor controlled, full mission solutions.

The simulator provides a virtual non-destructive training environment for accelerated, hands on training for both novice and experienced operators. Trainees can repetitively practice routine and specific tasks to imbibe safe and efficient work practices. ARI simulators - with their enhanced visual, motion and sound systems - represent the state of the art in crane simulation for operations training for enhanced safety and improved productivity.
A typical full mission crane simulator includes: a replica operator cabin; seat; swappable plug & play control consoles; high fidelity visual system; sound system; option of motion platforms; an instructor station with CCTV, stealth view & debriefing sections in a classroom or container configuration.

The ARI Offshore Crane Simulator is approved by DNV-GL to the highest Class ‘A’ Standards. All stages of OPITO offshore crane operator training and assessment can be carried out using the simulator. The ARI Crane Simulator also encapsulates the API standards for crane types.

**Swappable Replica Crane Control Consoles**

Crane control consoles emulate those on a real crane and are designed as plug and play devices that can be swapped based on the crane type, make and model.

**Operator Station**

The replica operator station simulates a real crane cabin with controls accessible on either side of the operator’s chair, out of cabin view and a microphone for communication.
Instructor Station

The instructor can view the trainee’s reactions to emergency situations, zoom in using stealth view for debriefing, freeze the exercise, pause, communicate with the trainee, view the trainee’s replay, actions and assess the trainee on a range of metrics.

The instructor can operate the simulator in:

Edit Mode: create & save different configurations.
Run Mode: real-time events, faults, emergencies and operation failures can be injected in run time.

Control Parameters

Weather conditions: rain, snow, fog, wind and sea state.
Time of day: varying sun & shadow conditions, night operation.

Crane Settings

Speed of hoisting, boom, gantry travel, slow down factor, etc.

Container / Cargo Placement

The instructor can create an exercise, place containers/cargoes and configure the load according to the lift plan.
Obstacle Creation
The Instructor can control and re-position the various obstacles during the exercise, making the exercise tougher, to enhance the operational skills of the trainee.

Faults and Emergencies
To create an emergency or accident scenario, various faults and emergencies can be introduced during a running exercise.

Assessment & Feedback
Productivity Metrics: number of moves, number of containers handled, average number of containers handled per hour.
Safety Metrics: total number of collisions, number of major mistakes, number of minor mistakes. Mistakes can be custom defined.

All operator and instructor events are logged and these events can be replayed during debriefing. A record of all moves for each operator will be stored in a database to monitor improvement over time.

Visual System
The multi-channel visual system for the operator cabin view provides the trainee with a realistic out of the cabin view.

The visual system is completely integrated with the simulation exercise, motion, sound system and crane controls and thus provides the necessary depth in the visual perspective.

Motion System
The operator cabin can be installed on a motion platform.
Variety of Crane Types

QC, RTG, RMG, SG, PC, EOT, mobile telescopic boom, mobile harbour crane, offshore pedestal and knuckle boom cranes and a variety of construction and Tower crane types.

In addition to these, ARI can customize client specific crane types and build virtual environments to customer requirements.
CRAWLER CRANE
VESSEL MOUNTED CRANE
SHIP GANTRY CRANE
INSTALLER CRANE
FLOATING CRANE
HEAVY LIFT PEDESTAL CRANE
CRAWLER CRANE
MOBILE TELESCOPIC BOOM CRANE
TOWER CRANE
BACKHOE LOADER
EXCAVATOR CRANE
Selection of Container types: 20’, 40’, 45’, high cube, flatracks, reefers, open top, tanktainers, hazardous containers, odd dimension with OH guides or OH chains, hatchcover operation.

Selection of Break bulk cargoes: pulp, lumber stacks, logs, steel coils, pipes, rebars etc.

Customization is a key ARI strength: Crane simulators can be customized for various specific crane makes, spreaders, operating visual worlds, terminals, yards, lanes, wharfs, rigs, ship types and crane controls.
SALES & CUSTOMER SERVICES

ARI WORLDWIDE

With operations, partners and representatives around the world, an ARI representative is only a mouse click away.

Drop us a mail at info@arisimulation.com and an ARI representative will get back to you promptly.

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