Tenstar Simulation

Simulation based training tools for Construction, Transport and Agriculture

www.tenstarsimulation.com
"Tenstar Simulation provides simulation based training tools that are environmentally friendly, safe and cost efficient for machines and vehicles in the construction, transport and agricultural industries."
Tenstar Simulation

- Swedish based companies
- Founders with many years of experience from:
  - Construction industry
  - Machine control systems
  - Software development
Focus

1. Schools and professional trainers

2. Development for machine manufacturers

3. Development machine accessory manufacturers.
<table>
<thead>
<tr>
<th>Construction</th>
<th>Transport</th>
<th>Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel loader</td>
<td>Wheel loader</td>
<td>Wheel loader</td>
</tr>
<tr>
<td>Excavator</td>
<td>Truck</td>
<td></td>
</tr>
<tr>
<td>Tower crane</td>
<td>Crane lorry</td>
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<tr>
<td>Articulated hauler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grader</td>
<td></td>
<td>Tractor</td>
</tr>
<tr>
<td>Dozer</td>
<td>Fork lift</td>
<td>Combine harvester</td>
</tr>
<tr>
<td>Mobile crane</td>
<td>Mobile crane</td>
<td></td>
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<td>Backhoe loader</td>
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<td>Tele handler</td>
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</tbody>
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Green Machine is done with a well developed exercise package
Yellow Machine is developed with fewer exercises
Black machine is not yet developed but planned for the future
Hardware
TENSTAR MOBILE UNIT

- Designed to combine the entire simulator in a single compact unit.
- All power cables are protected, with only one cable to connect to the outlet.
- Movable and can be placed where it is needed for the moment.
Three screen solution
The real stuff
Mobile Unit with Motion Base
Full cabin solution with 6DOF Motion Base
Why simulation?

- **Low investment** *(for the cost of one middle sized excavator a simulator can offer 10 virtual machines)*

- **Minimal operating cost** *(no fuel consumption, no wear and tear, insurance and service costs)*

- **Efficient** *(exercises of increasing difficulty, no instructor supervision required, season independent...)*

- **Environmentally friendly** *(no fosile fuel)*

- **Safe and controlled workplace** *(available to inexperienced operators, no safety risk of dangerous work situations)*
The cost and the value for money

- 10 Euro / hour

- 1 x 500 000 Euro or 15 x 30 000 Euro?
Important for a simulation based training tool?

- Hardware
- Graphics
- Funktionality
- Exercise content
- Upgradable
- Training and expertise
Software - instructor’s tool

- Administration tool for the instructor (standard included):
  - Creation of student profile and assign to class groups
  - Releasing of exercises as students progress in education
  - Log with individual student results
  - Feedback and messaging to students
Tenstar Simulation offers

- **Official training curriculum:** exercises based on the official training packages of machine operators.

- **Scalability in language:** simulators are available in several different languages

- **Pedagogic structure:** exercises bundled in chapters of increasing difficulty. The instructor releases the exercises to the trainees as they progress in learning

- **Long term commitment and continuous development:** new exercises and extensions are constantly being developed.

- **Tilt rotator:** exercise pack using the tilt rotator on hydraulic excavator

- **Machine Control System:** Simulation of machine control systems (2D & 3D)
Tenstar Simulation offers

- **Flexible hardware setup**: Tenstar simulators can run on the same hardware setup, making investments more cost beneficial.

- **Teacher’s administration tool**: set-up class groups and allocate students, log and export training results.

- **Results by student**: Unique log-on by student

- **Realistic & high quality graphics**: multiple & different construction environments.

- **Network**: all simulators are connected in a network. Students can train on any available setup, providing greater scalability and higher cost benefits.