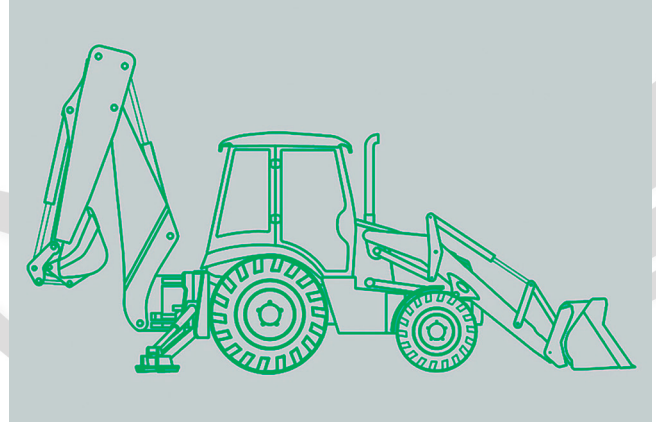


## BACKHOE LOADER TRAINING MODULE

### Overview /

The Vortex Backhoe Loader Training Module is part of the Vortex construction equipment training product suite.

From excavating and trenching to stockpile management and truck loading, operators who train with Vortex simulators develop the coordination and digging techniques they need to become safe, efficient operators.



### Key features & benefits /

With the Backhoe Loader Training Module, operators gain valuable experience in safe, efficient operations, with no wear and tear to the machine, and no risk to themselves or others. Operators build real machine skills faster than traditional training alone, and learning organizations save instructor time, increase student seat time, and reduce equipment costs.



1. A progressive learning program. Covering basic operating skills ranging from maneuvering and controls handling, to trenching, bench loading, and truck loading.
2. Performance metrics and reporting. That shows how to safely handle equipment and perform efficient excavation and earthmoving operations.
3. Best-of-class backhoe and earthmoving simulator. That ensures real skills development and behaves like the real machine.

## I. Learning program

The Backhoe Loader Training Module features progressive learning exercises - from beginner to advanced - designed to progressively teach precision skills and build confidence:

- Understanding the controls and vehicle positioning
- Loading and unloading from trailer
- Bucket positioning
- Earth moving and transport
- Stockpile management
- Excavation and grading
- Truck loading
- Using the quick coupler

## II. Performance measurement

The Backhoe Loader Training Module gives trainers objective insight into student performance and abilities. Trainers can measure key student performance metrics such as:

- Movement efficiency and accuracy
- Collisions and shock loads
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- Fuel consumption, cycle time, and idle time
- Volume of material excavated per bucket load and in total

The optional student management system allows instructors to generate reports from training sessions, and review current and past performance.

## III. Machine and earth-moving simulation

The Backhoe Loader Training Module provides the most realistic simulation-based experience on the market. This ensures that students can transfer their skills directly from the simulator to the real world - there is no risk of negative training as with other game-based simulators.

Precise simulation of the loader's hydraulics system, transmission, and the detection ensure that trainees feel like they are driving the real thing, with realistic machine feedback at all times.

Simulation of soil digging and dumping is powered by decades of research into earthmoving simulation, and hundreds of peer-reviewed academic research papers. This means bucket forces, trenching, and loading are accurately simulated, and digging feels like the real thing.

The functional in-cab monitor displays key operational information as well as additional controls and machine configuration. It includes a rear-facing camera that helps trainees acquire the situational awareness required to maneuver in confined locations.

The Backhoe Loader Module supports different hardware configurations to meet your budget, space, and training requirements:

- Vortex Trainer: Desktop simulator with real controls
- Vortex Advantage: One, three, or five displays and optional motion

All Vortex hardware is designed for maximum durability and reliability, to protect your investment.