



Backhoe Simulation Curriculum

Simulated Equipment Specs

Engine power: 83 kW (111 hp)
Operating weight: 8,300 kg (18,298 lbs)
 5-speed, power shift transmission, and clutch cutoff
 Mechanical front-wheel drive (with option for 4WD)
 Extendable dipperstick
 Hydraulic quick coupler

Overview

The Intellia Backhoe Simulation Curriculum delivers high-fidelity, physics-based training that accurately replicates real-world machine behavior, including backlash, hydraulic response, and stability dynamics. This realism makes it ideal for teaching operators how to leverage the flexibility of this machine and control its center of gravity, while helping trainers accelerate proficiency, improve safety, and boost productivity.

Key Features & Benefits

A progressive learning program covering basic operating skills ranging from maneuvering and controls handling to trenching, bench loading, and truck loading.

Best-in-class vehicle simulation that ensures trainees understand how the equipment works and what is required for efficient and safe operations.

Performance metrics & reporting that provide an objective assessment of operator capabilities.



A Complete Training Solution

Discover a simulation curriculum that offers unparalleled realism and open exercises that have multiple possible solutions, leaving it to the operator to exercise skill, creativity, and good judgment to solve problems, just as they would in the real world. The Intellia Backhoe Simulation Curriculum's advanced learning tools even include a Grade Quality Sensor (GQS) overlay that can be activated at any time during the exercise. In addition to real-time feedback on excavation height, slope, and consistency, the GQS also provides an overall excavation performance score to operators.



Trainers can also take lessons to the next level with the Intellia Training Management Tools, which offer next-generation reporting, trainee monitoring, and custom learning path planning features.

Dedicated to Your Training Success

The Intellia Workforce Training System is a workforce development solution that standardizes, manages, and scales simulation-based operator training. By connecting the simulation curriculum, training management tools, and AI-assisted learning, instructors gain real-time monitoring and reporting while operators follow structured, physics-based exercises that build precision machine control and job-ready skills.

Learning Outcomes

- ✓ Walkaround inspection
- ✓ Controls familiarization
- ✓ Loading and unloading from a trailer
- ✓ Bucket positioning
- ✓ Earthmoving and transport
- ✓ Stockpile management
- ✓ Excavation and grading
- ✓ Truck loading
- ✓ Attachment change with quick coupler

Performance Metrics

Tracks critical performance, safety, and productivity metrics, including:

- ✓ Completion time
- ✓ Movement efficiency and accuracy
- ✓ Safety violations, including collisions and shock loads
- ✓ Fuel consumption
- ✓ Cycle and idle time
- ✓ Volume of material excavated per bucket load and in total

Simulator Options

- ✓ Portable **Edge Plus** desktop series
- ✓ Compact motion-enabled **Edge Max** series
- ✓ Fully immersive **Advantage** series

Compatible Industry-Grade Controls

- ✓ Uni-directional pedals
- ✓ Steering wheel
- ✓ Joysticks