

Excavator Simulator

An excavator simulation terminal for construction-equipment training and vocational teaching.



A seat, twin joysticks, foot controls and visual display support familiarisation with physical controls and virtual operations, supplementing real-machine training.

Display system

40-inch flat-panel television

Control layout

Twin joysticks / foot controls

Product form

Static

Machine type

Tracked excavator

Product models

YSL-EXC-S40-V1

Production lead time

Approx. 2–3 weeks after payment

Photographs and software screens illustrate configurations; the final delivery scope is defined by the confirmed order.

Product overview

Reduce basic-training consumption

Practise travel, swing and implement controls on the simulator to reduce reliance on real-machine fuel, operating time and construction sites during these lessons.

Learn the excavator control layout

Learn the driving position through twin joysticks, pedals, levers, throttle and ignition switches before operating real equipment.

Practise typical construction workflows

Trenching and slope work, material loading, road levelling and trailer loading tasks combine instructions and progress feedback to teach operating procedures.

Attachment and specialist-task teaching

Attachment changes, pipe lifting and backfilling, rebar cutting with hydraulic shears and vibratory compaction support varied demonstrations and practice.

Indoor day and night training

Switch between day and night scenarios indoors to practise route following and work-area observation.

Consistent basic instruction

Support consistent basic teaching for transport operators and colleges; vehicle types, scoring and reports depend on the delivered software.

Review errors and safety points

Review recorded collisions, rollovers, swing with the bucket in soil and tracks entering trenches to analyse mistakes and discuss site safety.

Orientation and refresher training

Support new-operator familiarisation and refresher practice; use time, progress, errors and scores to review performance and plan targeted repetition.

Standard hardware and options

Seat and operator station	Standard equipment × 1
Twin joysticks	Standard equipment × 1
Foot controls and levers	Standard equipment × 1
40-inch flat-panel TV display	Standard equipment × 1
Throttle, ignition and auxiliary switches	Standard equipment × 1
Simulation computer	Standard equipment × 1
Excavator simulation software	Standard equipment × 1

Optional configurations

Instructor workstation, VR headset and motion platform are available by project; scope and specifications are confirmed with the order.

One of each listed standard item is supplied. Detailed specifications and optional configurations are confirmed with the order.

Software features

Screens show basic controls, travel and work training, day/night scenarios, results and errors. The supplied screenshots follow learning entry, basic operation and work processes; click for the originals.

Excavator operation training

Learn physical controls and basic excavator movements

Twin joysticks, foot controls, levers and switches support travel, swing, boom, stick and bucket training, with task progress and control-state feedback.

- Twin joysticks, foot controls and switches
- Travel, swing and implement fundamentals
- Task progress and control-state display

Basic control training

Basic menus include forward/reverse travel, left/right turns, cab swing in both directions, boom and stick movements, and bucket curl and dump.

Work-task training

Menus show travel, trenching and slope work, trailer loading, excavation and stockpiling, road levelling, off-road travel, pipe lifting and backfilling, attachment changes, grid trenches, brick pushing, stone filling, rebar cutting and vibratory compaction; material loading and urban road works are also shown.

Scenarios and environmental conditions

Screens show day/night training, route guidance and marked work areas. Trenching screens include Soft/Hard controls; their meaning and additional weather options are confirmed with the software configuration.

Safe operation and emergency training

Results record collisions, rollovers, excessive bucket burial, swing with the bucket in soil, tracks entering trenches and incorrect dumping. Dedicated emergency and fault-simulation scope is confirmed with the order.

Scoring and training results

Results show training time, completion, error counts and total score. Deduction rules and assessment standards are confirmed for the delivered course.

Result management and printing

The result screen includes printing. An optional instructor workstation supports saved results, history queries and data export; formats and report layouts depend on the delivered version and order.

Operating aids and status display

Task instructions, progress, route or work-area guidance and boom, stick, swing, bucket and throttle states are displayed. Interior and exterior views are shown; view-switching controls depend on the delivered configuration.

Languages and system extensions

One interface language is preinstalled: English, Arabic, Spanish, Romanian or Ukrainian, selected when ordering. VR, 3DOF or 6DOF motion, instructor workstation and software customisation are optional, with compatibility confirmed by project.

This page shows only a selection of software features and interfaces. Features may be added or modified in future software versions. The delivered software version and feature set are subject to the order confirmation.

Software entry and training tasks

Basic operation and day/night scenarios

Work processes and results

OPTIONAL SYSTEM

Instructor software interface

The optional instructor workstation provides terminal status, excavator task selection, training records and error details. Result storage and export, connection capacity and control scope are confirmed with the delivered software and order.

Terminal status and task selection

The interface lists terminal ID, status, student ID, name, current task and screen-link status, with task assignment and batch assignment controls. Connection capacity and control scope are confirmed per project.

Excavator training selection

Select basic, driving or practical training. The practical list includes trenching and slope trimming, truck loading, ground leveling, pipe lifting and backfilling, and attachment tasks. Available courses depend on the delivered configuration.

Training history and filters

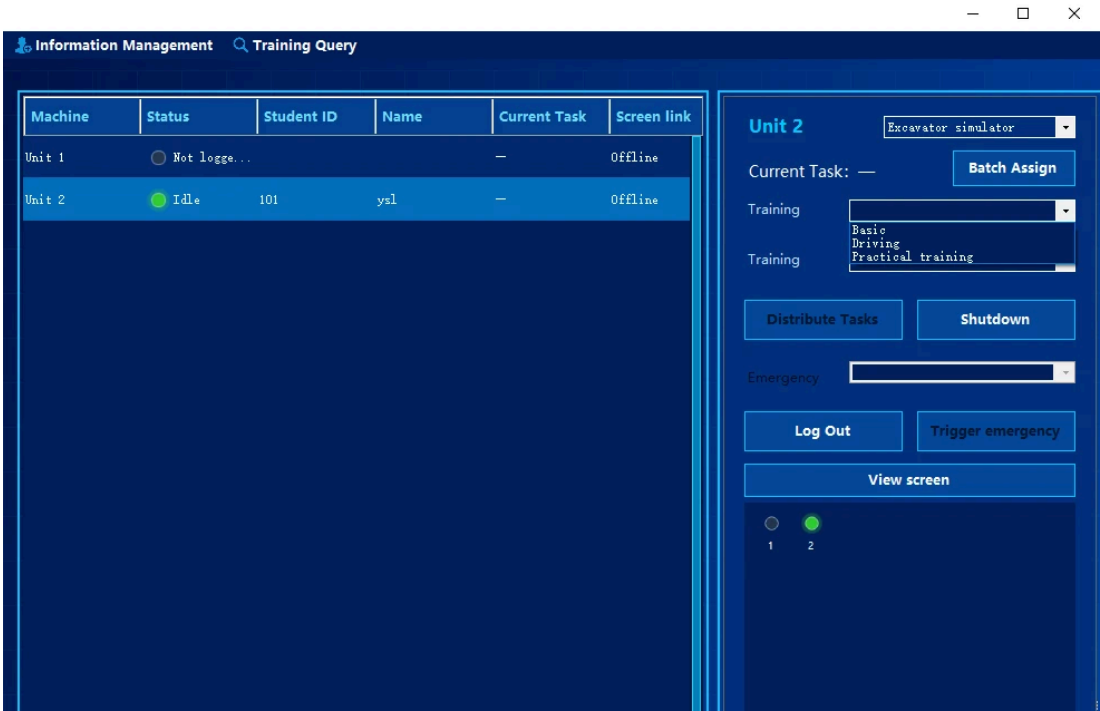
Filter by name, student ID, training scene, time or score. View simulator type, exercise, start and end times, duration and score, and open training details.

Error details and printing

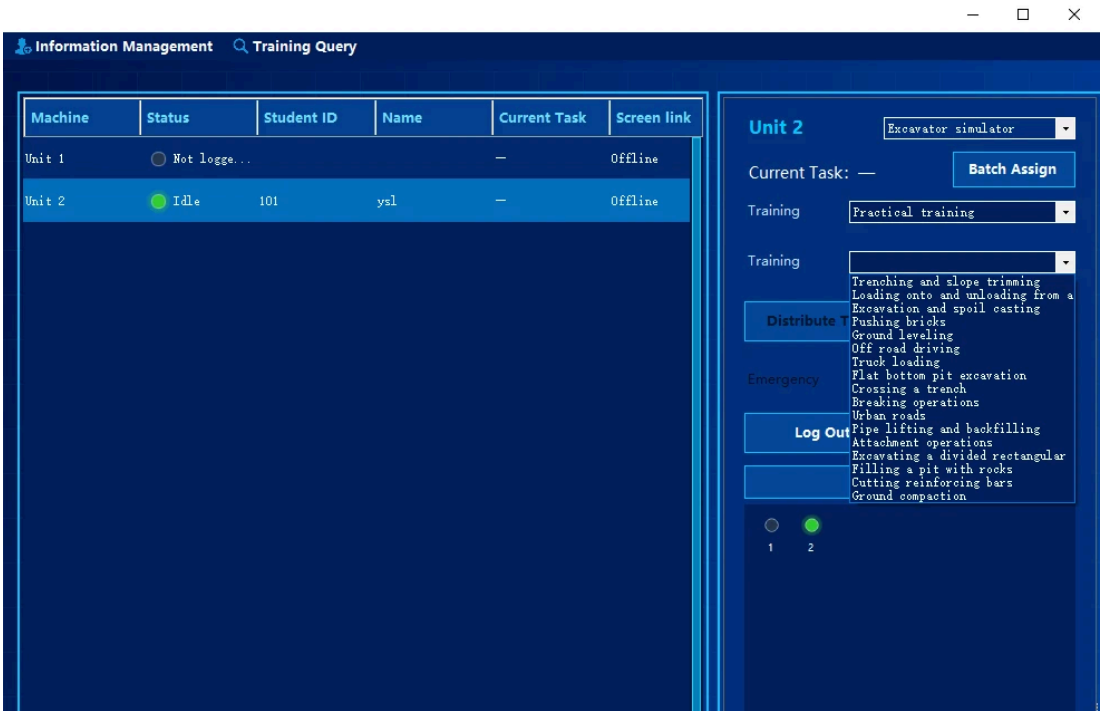
Training details show incorrect operations, error counts and point deductions, with a print control for post-session review. Scoring rules, printing setup and export formats depend on the delivered software.

Screenshots show the English interface. Software language and optional workstation functions follow the confirmed order configuration.

Instructor software interface



Terminal status and task selection



Excavator training selection

Instructor software interface

Instructor Information

Full Name: ysl

Switch

Please enter the query criteria

☐ Full Name

☐ Student ID

☐ Training Scene

☐ Training Time

☐ Score

Full Name:

Student ID:

Training Scene:

Score:

Time Slot:

2026/10/10 09:08:10

~

2026/10/10 09:08:10

Delete

Refresh

Query

Training Details

number	Student ID	Full Name	Simulator	Training Scene	Start Time	End Time	Training Duration	Score
20261009165408	101	ysl	Excavator simulator	Move forward	2026/10/9 16:53	2026/10/9 16:54	4	0
20261009165327	101	ysl	Excavator simulator	Move backward	2026/10/9 16:52	2026/10/9 16:53	43	0
20261009152350	101	ysl	Excavator simulator	Figure 8 Driving	2026/10/9 15:23	2026/10/9 15:23	13	0
20261009151519	101	ysl	Excavator simulator	Figure 8 Driving	2026/10/9 15:14	2026/10/9 15:15	7	0
20261009145537	101	ysl	Excavator simulator	Figure 8 Driving	2026/10/9 14:55	2026/10/9 14:55	18	0
20260204211342	101	ysl	Driving simulator	snow	2026/2/4 21:10	2026/2/4 21:13	115	100
20260204211025	101	ysl	Driving simulator	City driving	2026/2/4 21:04	2026/2/4 21:10	3	98
20260204211112	102	ysl2	Driving simulator	Gravel road	2026/2/4 21:04	2026/2/4 21:11	384	54
20260204204621	102	ysl2	Driving simulator	Gravel road	2026/2/4 20:43	2026/2/4 20:46	168	95

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Training history and filters

Instructor Information

Full Name: ysl

Student Information

Full Name: ysl

Student ID: 101

number	Training Scene	Training time	Score	Simulator
20261009165408	Move forward	0:04	0	Excavator simulator
20261009165327	Move backward	0:43	0	Excavator simulator
20261009152350	Figure 8 Driving	0:13	0	Excavator simulator
20261009151519	Figure 8 Driving	0:07	0	Excavator simulator
20261009145537	Figure 8 Driving	0:18	0	Excavator simulator

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Enter the time period to query:

2026/10/10 09:08:35

~

2026/10/10 09:08:35

Query

Delete training

Refresh

print

Training Scene	Incorrect operation	Number of errors	Deduct points
Move forward	Machine hits other object	0	
Move forward	Push in two or more bricks quickly	0	
Move forward	Serious rollover accident	0	
Move forward	Bucket is buried too deep, please lift the main boom a little	0	
Move forward	Rotating machine body is prohibited when bucket is deep in soil	0	
Move forward	Excavator track is in the ditch	0	
Move forward	Serious safe operation accident	0	
Move forward	Chassis tilt is prohibited when uphill and downhill	0	
Move forward	Machine body angle is prohibited too large when uphill and downhill	0	
Move forward	You are digging too deep	0	
Move forward	Pour the soil in the wrong place	0	
Move forward	The pile of soil is too high	0	

Error details and printing

Technical specifications

Standard specifications and optional extensions

Standard specifications Delivery scope confirmed with the order	
Product / model	Excavator simulator / YSL-EXC-S40-V1
Machine type	Tracked excavator
Product form	Static; fixed base without motion feedback
Display system	One 40-inch flat-panel TV; resolution 1920 × 1080 (Full HD)
Standard colour	Black + yellow; other colours can be customised by project and confirmed with the order
Overall dimensions	1350 × 900 × 1410 mm (L × W × H) Tolerance: ±10 mm. Overall height includes castors and is measured to the top of the display.
Net equipment weight	Approx. 138 kg
Packing dimensions / gross weight	Wooden crate: 1400 × 1050 × 1220 mm (L × W × H); gross weight approx. 240 kg; one crate
Power supply and maximum consumption	Standard input: AC 220 V (±10%), 50 Hz, 600 W Power input can be adapted to local supply standards, including AC 110 V. Voltage and frequency must be agreed at order confirmation and recorded in the final specification.
Computer configuration	Intel Core i5-6500; Gigabyte H110M-S2PH; GTX 1660 6 GB; 8 GB RAM; 128 GB SSD Reference configuration. Brands or models may change with availability; replacements will provide equivalent or better performance, subject to the final order specification.
Pre-installed software language	One software interface language is preinstalled: English, Arabic, Spanish, Romanian or Ukrainian. Select the language at order confirmation.

Physical controls	Twin joysticks, foot controls and levers, throttle, ignition, lights, horn and mechanical switches
Operating environment	0–35 °C; 20%–80% RH, non-condensing
Optional extensions Not included as standard; confirmed by project	
Motion platformOptional	A 3DOF or 6DOF motion platform can be configured; platform type, payload and motion parameters are confirmed per project
VR headsetOptional	VR headset and display solutions available by project; models, software compatibility and scope are confirmed for the application
Instructor workstationOptional	Optional instructor workstation supports saved results, history and export; hardware, terminal capacity and export formats are confirmed with the order
Software customisationOptional	Software customisation available; features, lead time and cost are agreed for each project

Delivery and support

Production lead time

Usually about 2–3 weeks after payment, subject to the confirmed order and configuration.

Export packing

One export wooden crate per unit; see the specifications for packed dimensions and gross weight.

Factory testing

Software, hardware and overall operation are checked before dispatch.

Installation and training

A user manual is supplied. Remote installation guidance and operator training can be provided when required.

Warranty and upgrades

One-year hardware warranty. Standard new software features may be upgraded free of charge; confirm applicable conditions with sales.

Remote diagnostics

Remote troubleshooting assistance is available; overseas on-site service is not currently provided.

Project enquiries

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