MOBILE TRUCK/BUS SIMULATOR

The Simu-PL is an efficient and innovative truck and bus driving simulator for novice as well as experienced drivers training. It is an easy-to-use compact simulator mounted on a Motion base and fitted with an immersive visual system and sophisticated computer and Tablet PC. It’s an advanced driving simulator with real cabin modified as driving station with active OEM Part.

The Simu-PL is used for driving license training, professional driver’s periodic training (initial and on-going training), for eco-driving, road traffic safety but also refresher courses. It helps employers/trainers/driving schools in analyzing trainee’s behavior towards specific events or exercises in realistic conditions. It also contributes to sustainable development of companies/employers/driving schools and helps to reduce the use and maintenance cost of their vehicles.

It has been officially recognized and certified for periodic training of professional drivers according to EU Directive 2003/59/CE (15 of July 2003 by the European Parliament). The software exists (or are in process of being translated) in several languages such as French, English, Italian, German, Portuguese, Spanish and Arabic. In any event our software is easily translatable.
The simulator comprises 2 systems: Driving Station and the Instructor Station

**Driving Station** is where the driver sits and drives the vehicle just like in a real truck or Bus. The software is projected in a 120 degree immersive display (180 degree in driving situation into the software) through three LCD 60 inches TV Screens.

**Instructor Station** controls the driver station. It also allows instructor to set scenarios, environmental conditions, inject on-line faults, keep track of all driving parameters and communicate with drivers. The instructor can also record and replay the entire performance of each trainee and can generate reports on customized parameters that can be saved on web servers and printed. The drivers can be tested in different forms and their levels of competence evaluated.

SOFTWARE: ROAD STAR INITIAL-PL

Road Star PL is the most innovative and efficient truck and bus driving simulation software of the European ground simulator’s market.

It combines many new modules and scenarios that enable very wide range of training courses. It enables more than 5 000 working combinations and limitless exercises by confronting trainees to various challenges. This software is the result of 2 years of 100% in-house development by computer graphics designers, engineers and skillful European trainer’s (French, Belgian, Italian, German).

The program is intended for professional driver’s training (initial and on-going training), driving license (License C and D), maneuvering, eco-driving and traffic safety training.

The software exists in several languages such as English, Italian, German, French, Spanish, Portuguese and Arabic. In any event our software is easily translatable (the customer participation can be required for some languages).

The Truck driving simulator with Road Star PL has been officially recognized and certified for periodic training of professional drivers according to EU Directive 2003/59/CE (15 of July 2003 by the European Parliament) and French Directive of the 3rd January 2008 (art.5 - subparagraph II).

Please find all the characteristics in attachment in “Road Star PL” brochure:

[http://fahrschulsimulator.com/service/download/](http://fahrschulsimulator.com/service/download/)
SIMU-PL CHARACTERISTICS

Panoramic View:
- 120 degree immersive display through three 60 inches LCD Screens (180 degree in driving situation into the software)
- 3 TV Stander (adjustable height)
- Area of projection: 3 m

Computer:
- PC
- Software
- Speaker and Headphone
- Keyboard and Mouse
- LAN and power located in the front
- Tablet PC (Instructor Station)

PC Configuration:
- Windows Seven Pro
- Motherboard MSI Z77
- Processor core I7 3770 à 3,5 ghz
- 4 GB memory ram DDR3
- Hard Disk Drive 500 GB
- Graphics Card GTX 570
- Power Supply Corsair 700W
- PCI Card (wifi)
- DVD Burner

Dimension:
**In use (when installed):**
- Length 2 m x Width 1.05m x Height 1.95m (6ft 7in Length x 3ft 5.35in Width x 6ft 5in Height)
- Weight : 400 kg (880 lbs)

**In Transport:**
- Foldable seat
- Length 2 m x Width 0.795 m x Height 1.95 m (6ft 7in Length x 2ft 7.3in Width x 6ft 5in Height)

Gears
- Manual OEM Gear (Premium Renault Truck): 8 Speeds + Rear
- Automatic Gear

OEM Clutch, Brake and Accelerator
(Premium Renault Truck)
Parking Brake

OEM Steering Wheel
(Premium Renault Truck - 47cm diameter)
with pneumatic force feedback

Fully functional OEM Parts and dashboard with active vehicle controls
(Premium Renault Truck)
- Light Set (Main Beam, Blinker, Dipped headlights…)
- Horn
- Windscreen wiper
- Electric Retarder
- Dynamic Braking

Electronically Adjustable Rear-View

Digital Tachograph Card Reader

Trackball for the driver
PNEUMATIC SEAT
- Premium Renault Truck Seat, adjustable by Air Compression
- Safety belt with roll-in and closure detector (detected by the soft)

Electrical Motion Base
The motion base is located under the seat (vibrating) to provide an immersive and better feeling of driving. The motion base creates pitching (tossing) and rolling.

SUMMARY SPECIFICATION:
- 3 LCD TV HD SCREENS
- 3 TV STANDS
- SIMU-PL Grey Metallic Shell
- 4 lockable wheels to displace the simulator
- INSTRUCTOR STATION Mousse + Keyboard Tablet PC
- Coupling Devices For Heavy Good

For more information visit: www.simucar.com
The Software includes 6 vehicles:
- Semi Trailer Truck (420hp + trailer 16,5m)
- Straight Truck (15t. 420hp – trailer 9m)
- Tanker (multi compartments - <16,5m)
- Road Train (Straight Truck 420ch + Trailer 18m)
- Bus (300 ch – 12m)
- Coach (330 ch – 12m)

Various loads (solid – liquid), load balancing, tonnage division, weight, center of gravity, multiples compartments…

INSTANTANEOUS SELECTION OF:
SCENARIOS, VEHICLE PARAMETERS, WEATHER CONDITIONS, CAMERAS, ENVIRONMENTS…

Various and affluent environments that are suitable for every kind of training:
- Tracks (Pistes d’Essais, Plateau Belge)
- Country Roads
- Mountain Roads
- Highways
- Urban agglomeration (City Centers)
- Tunnels…
- Industrial Areas

Diversity of Scenarios and Realism of Driving Situations:
- Hundreds of scenarios
- 3 Variations (or risky driving situations) for each scenario
- Classification of scenario by « Theme »
- Classification of scenario by « Favourite »
  (the instructor can classify or sort his favorite scenarios)

Wide choice of weather conditions:
- Each scenario by « Rainy » weather
- Each scenario by « Sunny » weather
- Each scenario by « Fog »
- Each scenario by « Night »
- Each scenario by « Snowy » weather
The Instructor can intervene in the software while the user is driving in order to create some specific scenarios or risky situations.

**Management of physical and driving abilities:**
- Reduced visual acuity, driving under the influence of alcohol (0,2g/l – 0,5g/l – 0,8g/l – 1,2g/l) or medication or drugs and somnolence or lack of vigilance are some of the driving hazards that you can experience safely with ROAD STAR PL!
- Break the monotony of a scenario by creating a surprise breakdown on demand: random tire burst or blowout, brake or engine failure....
- Modify the tire pressure, activate or deactivate the ABS, TCS or ESP systems in real time, compare eco-driving with and without the cruise control, etc...
- Variation of Scenario (to change the end of a scenario)

**Instructional Analysis:**
ROAD STAR PL provides a wide range of tools for a better analysis and education:
- Recorder (to Replay the scenario and all the situations, image per image, in slow-motion, sped up, or looped...)
- Markers (waypoints)
- Various angle cameras (zooming – 360° around the vehicles)
- Analysis of safety distance
- Analysis stopping distance
- Analysis of reaction time
- Compare your vehicle with an alcohol simulated vehicle

**Driving and Measurement Tools:**
- Several Cameras – Internal and External View (Side view, Front view, Back view, View from above)
- Traffic Density (High or Low)
- Guidance tool: ground marks, trajectory, path, distance between the vehicle and obstacles...

**Results and Score Boards:**
Synthesis and Statistics Summary:
- Driving synthesis (main statistics, CO² emission, fuel consumption...)
- Driving Errors (by typologie)
- Events (analysis of emergency and risky situations, drivers behavioral, anticipation, time reaction...
Trainees Monitoring:
Save your students information into the database. Save their address, obtained driving license, number of driving years, contact information...

The traceability of student results enables to retain trainees and offer them long term training programs.

Trainers will be able to follow consecutive courses and provide to trainees advanced or various training topics according to their needs.

The user stats are filed into a database and available for consultation or publishable at any moment for a perfect monitoring of your drivers.

Whether or not connected to Internet, everything you do with Road Star is saved.

ROAD STAR PL « INITIAL TRAINING »

Road Star PL provides a huge track for various exercise and driving objectives. The exercises have been developed together with graphic designers and professional instructors from different European countries in order to have efficient and relevant training programs. Thanks to this combination of know-how, you can offer successful pedagogic courses and to you trainees.

Characteristics of the Tracks:
In this area you will find:
- Testing Tracks (complets)
- Road with trees
- Parking Areas
- Road intersections with traffic lights
- Round-abouts
- Intersections like Y and T
- Entrance in highway shoulders
- Slopes
- Narrow Road (crossing narrow bridges)
- Emergency lanes
- Mountainous Areas
- Country roads
- Porticos
- Non stabilized shoulder on the road
- Straight ways
- Wet tracks
- Braking tracks
- Sliding tracks...
ROAD STAR PL “INITIAL TRAINING” – AUTONOMOUS PART (Virtual Instructor)

With the Autonomous part (stand-alone module) of Road Star PL there is a virtual instructor that is supervising and managing the drivers training. This version is more efficient for individual trainings or beginners driver training (driving license or initial training). The exercises are already structured and hierarchized with different level what is enabling to trainees an improvement step by step. Your instructor is also able to prepare upstream the exercise or the training program for trainees.

Obviously all the results and statistics of trainees are entirely saved in the data base (servor) and you will be able to consult them at any time.

ROAD STAR PL “ON-GOING” TRAINING:

Road Star PL has a part that is especially intended for the on-going training and refresher training.

The « On-going training » part represents the ideal solution for truck drivers periodic training. Perfectly adapted to mass audience events also, it will deploy its full potential in the harshest professional training.

ECO-DRIVING:

The eco-driving is also available in Road Star PL. For each exercise you can follow on the Tablet PC the CO2 emission, fuel consumption, instant consumption, consumption in L/100, travelled distance, travelled time, the accelerations, the use of the gears (to see if it’s in compliance with your instructions) and realize comparison between several tests and courses. There are also some specific exercises to approach eco-driving training in the on-going part of the software.