

2009-2010 SIMRAC Bus & Truck Simulators

TEAM SIMRAC

Top of the Range simulators for driver education, scenario training and research



SIMULATOR PRODUCT GUIDE

Team Simrac delivered its first bus simulator to a customer in 2004. For 2009-2010 Team Simrac has developed its capacity to provide customer specific simulator solutions. We now have experience in working with Volvo, Scania and VanHool bodies. Simulators can however be produced from almost any available bus or truck body and control configuration. Simrac wants to make sure that its products are perfect fit to customers needs, fleet and training requirements.

Officially approved for use in driver education

Team Simrac provided the simulator that lead to the amendment of the first EU level traffic and driver licence degree. Using simulator as a replacement for real-world driving in driver education is now possible. Simrac simulators are in full compliance with the EU directive EC/2003/59.

Simrac simulators

Realistic simulation environment is the main requirement for any real-world replacement in driver education. This is a challenge Team Simrac does not take lightly.

A Realistic simulator environment starts with a bus or truck body taken from selected manufacturers production line. The second step is to determine the drivers environment and any additional requirements our customer might have. The third and final step is to make sure that the simulation software supports the training needs of the customer. The customer may want to train driving in general, scenario driving (including special situation training, dangerous weather conditions, reversing) or even customer service training.

To complete the realistic environment, simrac can deliver immersive, up to 240° field of vision* plus the rear view mirrors by using up to six independently controlled LCD displays and image projecting.



Control tables

Instructors have excellent tools for monitoring drivers and giving tasks to perform. One instructor may instruct even up to 4 drivers at the same time.

* field of vision depends on realized simulator set-up and available space on customers premises

TEAM SIMRAC



Team Simrac Advantages

Team Simrac provides world class, top of the range simulators for worldwide markets. Our three main competitive advantages are:

1. The best and most accurate feel behind the wheel
2. SRLMP (Simrac Real Life Motion Platform)
3. Industry leading flexibility and capability to simulate multiple scenarios and vehicle types in single simulator

Simrac simulation environment

Another key aspect in realistic simulation environment is the Simrac Real Life Motion Platform or SRLMP. This platform interfaces with the high quality simulation software and is responsible for the real world effects. These include driver controls feedback, road curvature, uneven road, bumps, dips and even the feel of weight is experienced by the driver. SRLMP is also capable of replicating the feel of driving on dangerous road conditions.

There's a good reason why Simrac simulators perform excellently. Simrac started the development of SRLMP with the aim of simulating rally car racing. This was done as early as 1995. During the development Team Simrac has been actively seeking feedback from the worlds top WRC series drivers and has been improving the system ever since. New versions of SRLMP's have been brought to market every third year.

Even today, all Simrac simulators (including buses and trucks) benefit from the rallying background. Even if passenger buses aren't supposed to do racing they still have this capability. For Team Simrac customers, this means that their simulator can perform even the most difficult simulation scenarios. This is one of the major advantages to the Team Simrac Simulators.

Simrac simulation software

Simrac and it's simulation software partner Eepsoft have created their own simulation software. This enables taking full advantage of the advanced features of the SLRMP. This is most important when the customer wants to train in dangerous road conditions or in other demanding situations. Team Simrac takes pride in providing the most realistic "feeling behind the wheel". The combination of high quality simulation software and the SRLMP platform is what makes the Simrac simulators unique.

Benefits of using simulated training

With today's price on diesel fuel, environmental issues, heavy traffic and heightened safety regulations the benefits in simulator training are obvious. With simrac simulators you also get 50% - 300% more effective training hours than by using traditional training. Another benefit of simulator training is that you can focus the training to just those situations that otherwise would be hard or even impossible to train in real traffic. For driving instructors, it is even possible to train up to 4 drivers at the same time. All this and more is possible with Simrac Simulators. Please ask for more details on making training pay back.



Interior of Simrac S100 simulator

SIMRAC SIMULATORS HAVE THE MOST FLEXIBILITY TO TRAIN YOUR DRIVERS

Real world instrumentation

Team Simrac provides the most accurate and realistic simulation environment. Not only is the simulated world realistic but everything inside the cabin works just like they would in real world.

Team Simrac is the only provider that can provide matched simulators with it's customers fleet of trucks and buses.

Picture taken from Simrac T300 Truck Simulator (during a typical training situation)



Technical information about Simrac bus & truck simulators

	SIMRAC S100	SIMRAC S200	SIMRAC S/T250	SIMRAC T300
Simulator type	Bus	Bus	Bus / Truck	Truck
Simulator body & cabin	Volvo	Any commercially available body, cabin combination		
Field of vision	120° degree 2048x768 pixels	180° degrees up to 3840 x 1024 pixels	up to 240° degrees rear view mirror replication up to 5120x1024 pixels	
Simulator chassis type	Simrac Real Life Motion Platform (SRLMP) with either electric or pneumatic operation.			
Instructor options	Instructors control panel on laptop	control desk with 3 panel display for driver monitoring, optional conversation capability		
Simulated Axels, Simulated weight	2 axels, 18 ton, 52 seater standard bus	2-3 axel configuration, with user selectable weight and weight distribution.		Any variation with 2-8 axels and simulated weight of up to 60 metric tons.
Simulated conditions	weather (sunny, rain, snow, fog), surface (tarmac, gravel, ice or slush), time of day, traffic intensity, stops, street type (one-way, narrow streets, speed bumps, junctions, ramps, corners, obstacles), situations (turning, parking, reversing), potentially dangerous events (engine stall, flat tire) and many other instructor selectable events			
Other features	Please ask for more information. Simulators can be configured to match your needs.			
Maintenance & service plans	Simrac offers plans to get the most from your investment. Warranty extensions are also available.			

Frequently asked questions about Team Simrac and its simulators

About Team Simrac

Team Simrac started making simulators in 1995. First bus simulator was completed in 2004. First truck simulator rolled out in 2006. Team Simrac is about providing first class, top of the range, realistic simulators that fulfill the requirements of EU directive EC/2003/59,

Environment

Simrac products are a great way to reduce CO2 and other environment changing pollution. Simrac products help cut the emissions in two ways: 1.) Cutting down the pollution caused by driver education and 2.) Helping drivers to learn environmentally sound driving habits.

Safety

Safety is a big issue for a large scale, realistic simulator. Team Simrac products are designed to be safe and are equipped with multiple safety systems. We want to make sure that our equipment is safe to operate and maintain. Simrac simulator can be installed to almost any building or even into a suitably sized room. Please ask for more information about installing and operating a Simrac simulator.

How to Buy

Simrac is well informed about various needs of their customers. Standard bodies used with the simulator are those of Volvo, Scania or VanHool. In most cases we can provide our Customers with the body, cabin and controls of their own choosing (for example to match the existing fleet of buses).

How to Buy - continued

The process of buying involves about finding out whether the Customer has special needs for the simulation software. These typically include maps of specific cities, special circumstances or even scenarios to train drivers in. The standard simulator software however, is suitable for most purposes as it is. Simrac customers may also update their software to suit their needs.

Delivery & maintenance

Simrac delivers its simulators as a turnkey solution. Normal delivery time for a simulator is between 3-8 months depending on the customers requirements and the availability of chosen bus body. Please ask more information on how you can get Simrac simulator installed on your premises. Simrac offers comprehensive maintenance agreements so that you can focus on the business of training your drivers. Full manufacturers warranty covers the simulator for first 12 months, but warranty extensions to up to 5 years are available for Western European markets.

Typical expected service length for a bus simulator exceeds that of a real bus.

Experience the simulator

Team Simrac would like to welcome you to visit and experience our products. Our offices and demonstration location are both located conveniently near international airports of Helsinki (demo) and Tampere (office).



Typical simulator body & equipment

- Commercially available shortened body
- Simrac Real Life Motion Platform (SRLMP) & chassis
- Interior equipment and controls as required by the customer and EC/2003/59
- Electrical connectors and compressed air connector (not required for all simulators)
- Customized high performance computers and automation components

Typical controls included

- Adjustable steering wheel, with realistic feedback
- Manual gears and/or automatic gears (user switchable)
- Gas, brake and clutch pedal (not used in automatic mode)
- Pneumatic brakes
- ABS function
- Retarder with functions
- Parking break (handbrake)
- Virtual driving lights, turning signals
- Warning and other lights and screens of the dashboard as in the real similar truck
- Tachograph
- Emergency stop -switches (inside & outside)
- Air vents
- CD - Radio player

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