Driving Research Simulators

Whether your business is vehicle development, or general scientific vehicle related research, your human factor studies need a configurable and flexible model. Such a model must be able to replicate real world driving as closely as possible while simultaneously allowing for accurate measurements of all-important parameters. In addition it should allow for an easy interface of research equipment so as to allow for the manipulation of specific parameters during the experiment.

The AutoSim Driving Research Simulators AS 1200 and AS 1300 meet all of these requirements, and are the result of 14 years of experience in the driving simulator industry.

Features and Benefits

**Advanced API for Research Data**

In all research applications you are dependent on accurate measurement of all of the different aspects of the drivers behavior and actions. In conjunction to the measurement of experimental variables there lies the need to communicate with the driver in a variety of different ways.

Through a set of user-configurable communication channels, the Data Communication API, the user can monitor the relevant parts of the simulation for the research project, while simultaneously sending their own data to the scenario process. This allows for the use of external data to affect the simulation. Up to 500 communication channels are available.

The scenario process is user programmable, and a set of scenario functions gives you access to the simulation data, which you may then forward to your application through the communication channels.
**Powerful Scenario Development Tool**

The scenario development tool provides the functionality to develop scenarios of various complexities. Extremely complex scenarios, such as ones with unlimited numbers of vehicles, pedestrians, and other obstacles can be created. The vehicles are "intelligent" and behave like normal vehicles in traffic.

**Flexible Hardware Configurations**

From experience gained from early deliveries, AutoSim is today able to provide a tailor made, turnkey simulator solution.

There are multiple ways to configure the simulators. The following items can be customized.

- The number of visual channels or fields of view
- The type of front and rear displays (Flat or round screens)
- Different motion systems (car body vibration, seat vibration, 4-axes electric low frequency motion)
- Different types of cars (Renault Megan Scenic, Renault Magnum, Toyota Yaris, and Saturn are standard)
- Additional displays in the cockpit.
- Programmable servo actions on the accelerator and the steering

**Reference Customers**

Following research customers have purchased turnkey systems, software and upgrades from AutoSim:

- Transport Research Lab (TRL) England (Major upgrading)
- Fraunhofer Gesellshaft in Germany
- University of Minnesota, USA
- SINTEF Institute, Norway
- Beijing University of Technology, China
- University of Jyväskylä, Finland
- CIDAUT Institute, Spain

**Highly affordable**

Driving Research Simulators are no longer the multi-million dollar projects they once were. With today's standard mass-produced components, sub-systems and software the cost of simulators has fallen dramatically. At AutoSim these components are combined and customized to produce surprisingly affordable simulators. For more information on how AutoSim can help you meet your simulator requirements please contact us for more information.