



RAILWAY DRIVER TRAINING

REALISTIC EXERCISE MAKES THE PERFECT RAILWAY DRIVER

Airbus Defence and Space HIGH-SPEED TRAIN DRIVING SIMULATORS operated by companies such as German Railways (DB), Trenitalia (FS), Nuovo Trasporto Viaggiatori (NTV), Russian State Railways (RZD), and Turkish State Railways (TCDD).



Simulator-based training

The most safe, cost and time efficient way to learn and practice

YOUR SAFETY IS OUR MISSION

All train and line systems are to be operated, supervised and monitored by human operators whose capabilities are essential and a key factor to safety operation, punctual service and economic success. Their capabilities are to be trained, maintained and assessed on a regular, standardised basis.

In order to ensure safety and secure daily operation, especially in a high-speed railway operational environment an extensive individualized training is required recommended to be based on a simulator for driver and maintenance training in all essential tasks.

Simulator-based training

is especially suited for training situations which are impractical, difficult, dangerous or expensive to be conducted & reproduced in live environment

THE CHALLENGE - BUYING THE ESSENTIAL TRAINING TOOL

A well-designed full mission simulator (FMS) for train driver training substantially reduces training and operational costs through improved training and assessment and rating times. It also provides for on-going studies allowing students to enhance their skills and learn in close to real-world operational situations.

Our simulation-based training systems / driving simulators guarantees and feature:

- **Accurate and authentic simulation** of the railway vehicle, safety & signalling system
- **Initial vehicle preparation / basic operation and communication training**
- **Advanced training** in hazardous / critical and emergency situations
- **Fault finding and maintenance training** inclusive **interactive recovery procedures** and **emergency handling tasks** by simulating malfunctions, defects/faults/, incidents, abnormal and critical situations
- **Route familiarisation training** based on high-level of detail 3D track network
- **Testing of driver competence and knowledge of operational rules & procedures**
- Achievement of **uniformity in behavioral pattern** of all drivers
- **Certification & Licensing** of drivers
- **Increase of efficiency and profitability of training results** through quality and content, reduction in time delays and optimization in usage of training time

YOUR KEY TO SUCCESS

Airbus Defence and Space

- offers a fully comprehensive line of training products (desktop to replica cab simulators) and associated tools for driver education and assessment
- driving simulator products are based on the same true fidelity software
- provides your driving instructors with ease of use training systems and key functions for exercise creation, execution, monitoring and debriefing
- is the innovative leader in simulation technology and training delivery services

REALISTIC EXERCISE MAKES THE PROFESSIONAL DRIVER

THE SOLUTION

A full-mission train driver training system, comprising a 1:1 replica of the driver's cab inclusive driver desk with original controls and indications. For highest level of immersion into the virtual world, an electrical motion base - providing 6 degrees of freedom - is recommended for emulating acceleration and train movements. The wide angle visual system displays the driver's view of the line, based on computer-generated 3D scenarios in a high level of detail. Immersing into the virtual environment will be supported by simulation of daylight and sound, as well as the communication system, to be operated as in the original train. In addition to this, all parts of the track line's signalling and safety systems which are relevant for training and simulation, the high-speed train control system, the drive and braking systems and the train logic are all simulated in a level of detail which, apart from training driving, also enables training for fault situations (failures/malfunction of parts of the train and operational equipment), allowing drivers to be confronted with critical driving situations, all controlled by the means of an instructor station for exercise generation, control, monitoring and debriefing.



Train Driving Simulator Velaro RUS / SAPSAN™



Simulator driver cab, e.g. "Velaro RUS"



Simulator driver cab, e.g. "ICE 3 (BR407)"



Train Simulator – Virtual environment, example



Train Simulator – Instructor Station, example



Train Simulator – Part Task Trainer, example