



Metro Cab Driving Simulators

REALISTIC EXERCISE MAKES THE PERFECT METRO TRAIN DRIVER

From desktop to full operational training

YOUR SAFETY IS OUR MISSION

THE CHALLENGE

Today more and more complex Metro Rail Systems, in various grades of automation (GoA) are in planning, under construction and getting operational. Operators are requested to assure in time safety passenger transport and to achieve expected economical result and protect the environment.

Short train tact rates and an increasing number of passengers, high-speed operation are among the drivers of the development and introduction of high complex and automated trains, networked on-board vehicle systems and communication based train control, signalling, safety, protection and control systems to ensure safe and punctual services.

Most systems are to be handled and monitored by human operators whose capabilities are one of the key factors to safety operation and economic success.

In order to ensure safe and secure daily operation an extensive individualized training is required.



The metro train drivers / traffic controllers and operators capabilities are to be intensively trained, maintained and assessed on a regular, standardised basis. This may be accomplished using real equipment and occupying real track lines or as we recommend by the means of synthetic training media capable of simulating the train and its subsystems, specific metro lines and their railway / route infrastructure or the entire network of the real world metro operation (e.g. full mission simulators in combination with desk-type simulators and traffic control simulator and maintenance simulation modules / simulators & CBT).

By using simulators the quality of driver training can be enhanced while at the same time reducing training time and guaranteeing a constant high level of proficiency over the long term

THE SOLUTION

The training system comprises a 1:1 replica of the driver's metro train cab inclusive original control console, a motion base providing 5 degrees of freedom to emulate acceleration and train movements, a wide angle display to show the driver's view of the line, which are computer-generated 3D scenarios in a high level of detail, supported by daylight and sound simulation, as well as the onboard communication system as in the original Metro Cab. In addition to this, all parts of the track line's signalling and safety systems which are relevant for training and simulation, the 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.

Our simulation-based training systems feature :

- **Accurate and authentic simulation** of the metro train, safety & signalling system
- Training on **basic vehicle operation** incl. **Procedure training &** handling of onboard equipment, **Communication training**
- **Route familiarisation** based on high-level of detail 3D replication of real / geographically precise or generic / country-typical routes & track network
- **Fault finding, diagnosis & maintenance training**, based on **interactive training of defect and emergency handling** by simulating incidents, defects, abnormal and critical situations
- **Testing of driver competence and knowledge of Rules**
- Achievement of **uniformity in behavioural 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

Airbus DS Simulation & Training

- offers a fully comprehensive line of training products and associated tools for driver education and assessment
- driving simulator products are based on the same true fidelity software.
- is the innovative leader in simulation technology and training delivery services for both civil and military markets.



Metro Simulator – Replica Cab, example



Metro Simulator – Virtual environment, example



Metro Simulator – Instructor Station, example



Part Task Trainer / desk simulator, example