

Simulator – Driver Training Simulators and Computer- based Learning Products



APPLICATIONS

Reference projects include: Karlsruhe Verkehrsbetriebe / Albtalbahn with mixed traffic operation for tram and mainline service, Norwegian Railways (NSB) with mainline and high-speed operation, Indian Railways (recently awarded) comprising: 12 full cab rail driving simulators complete with six degrees of freedom motion bases and 72 procedural training simulators. The simulators will accurately model five diesel locomotives, four electric locomotives, and three types of multiple unit a total of 2,100 km of track

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DESCRIPTION

Knorr-Bremse's simulator portfolio covers the entire range of simulation tools, including laptop or tablet-based training modules, a portable simulator, a desk simulator (as presented here on the booth), and full cab simulators. The product uses the latest graphics, hardware and gaming technologies including the Sydac/Knorr-Bremse patented "Live 3D"® software. The Knorr-Bremse/Sydac computer-based learning environment includes knowledge-based training and assessment modules with multimedia resources; system modelling and simulation-based training and assessment modules; and highly interactive and user-scriptable situation-based training and assessment modules.

OPTIMIZED USE OF MATERIALS

- use of commercial off-the-shelf product technologies and modular construction increases adaptability and updateability of simulator products

ENHANCED MAINTAINABILITY

- use of multipurpose computers means that spares are readily available and can be easily exchanged in the unlikely event of failure, thereby avoiding reactive maintenance visits
- much of the fault-fixing and upgrades of Knorr-Bremse simulators can be undertaken remotely, reducing emissions and service costs

IMPROVED TRAFFIC MANAGEMENT / SAFETY

- simulators provide repetitive on-demand training in situations which are either impractical, difficult, dangerous/risky or too expensive to be conducted and reproduced in a live environment
- situation-based training for communication between all rail personnel, i.e. drivers, guards, signallers and controllers, improves speed, accuracy and quality of communication, leading to operational and safety improvements
- off-track training maximizes track availability for passenger and freight operations

LESS LIFECYCLE COSTS

- off-track training reduces vehicle mileage - up to 75% less on-track training kilometers
- mobile simulators allow simulators to be taken to the trainees rather than vice versa, thus reduced overall emissions and operating costs

INCREASED ENERGY EFFICIENCY

- track familiarity and training in efficient driving techniques reduces energy consumption and thus CO2 emissions as well as reducing brake dust and noise levels
- the Association of Train Operating Companies in the UK estimates that cost savings in the range of 5% to 10% can be achieved by a coordinated program of driver coaching and consumption monitoring
- driver training on a simulator uses less than 1% of the equivalent on-track training

Disclaimer: We have prepared the product description with due care but cannot exclude any errors. The product description does not contain any warranty or guarantee, in particular neither regarding correctness, accuracy and completeness of contained information nor regarding quality, negotiability, adequacy for certain purposes and compliance with laws and patents of described products.

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