

SIMULATOR DIFFERENTIATORS



SYDAC
simulating a better reality

S Y D A C



Knorr-Bremse Group



Innovative

Leading edge rail operators are continually looking at innovative, cost effective ways to improve operations. Research and experience has shown the greatest benefit comes from increasing the skill and safety levels of their work-force including the drivers, guards, station staff, track workers; right up to senior management.

Effectiveness

Sydac believes that all training simulators should be judged against; how effective they are in assisting staff to learn the competencies that the organisation requires and how well this learning transfers to on-the-job operation.

Extensive knowledge

When purchasing a Sydac simulator, you will benefit from the extensive knowledge and links Sydac has with leading

academic and industry bodies, who are continually researching simulator, based training effectiveness.

‘World-first’ technology

This research and collaboration enables Sydac to further develop the long list of ‘world-first’ technologies that have made their products and services the most requested in the international rail simulator market place.

No “one size fits all” approach

Sydac does not believe in a “one size fits all” philosophy when it comes to building simulators. There are many different internal and external influences that can determine what type of simulator will match an organisations needs.

These include; different operating environments and managerial practices, the aims of the organisations

training systems, regulatory and government approvals and work-force processes.

RealityManger®

To customise a simulator that matches an individual organisations training needs, Sydac created its RealityManger® product.

RealityManager® allows Sydac to develop customised training solutions by “plugging in” tailored train dynamics, fault performance and driver cabs as well as visual, audio and motion, producing a complete realistic virtual train environment.

RealityManager® also provides the tools to produce a wide variety of track networks. Learning aids are also provided to assist trainee drivers to understand the impact of their driving actions, and include; advanced training scenarios and an instructor facility to re-certify drivers.



Exact Replicas

Sydac simulators are renowned for being an exact replica of the train drivers actual work environment.

Replicating the physics and logic of the train's control, traction, braking, coupling and ancillary systems, and also incorporating infrastructure such as; signals, points, escalators, fire alarms, etc.

High fidelity build

Sydac's high standard of physical fidelity ensures the simulator build and behavior performs realistically, increasing the psychological fidelity and ensuring optimum levels of training performance in a 'life-like' environment.

Extensive experience

Sydac's experience developing simulation solutions for hundreds of locomotive, railcar and rolling stock models over twenty years has continuously validated their accuracy with experimental and operational data.

In addition, Sydac's simulators provide the tools to directly import logged data from real trains etc. and to compare actual performance on real routes with performance in the simulator.



Superior levels of driving ability

RealityManager® also plays an important part in Best Practice Driver Training, with its advanced scenario scripting features; training instructors can re-create critical and complex incidents.

By utilising RealityManager® instructors can achieve a significantly higher level of driving ability from trainee drivers by ensuring trainees understand why they do things rather than just knowing what to do. This can mean different things to different operators.

For example;

- a heavy haul operator significantly reduces fuel usage and coupler/brake wear,
- a suburban passenger operator reduces the occurrence of SPAD's or minimises the disruption to network performance due to train faults by implementing better rectification response training, or
- reductions in the incidents of derailment over a notorious section of track,

All operators benefit from significantly increased levels of safety associated with the operation of the train.

By leveraging off Sydac's detailed physical train models, drivers are given an insight into what is happening inside the train and at the wheel/rail interface.

Sydac's use of fully dynamic visual and aural environments, accurate fault rep-

resentation, built-in voice and data radio communications and fully integrated procedural part task trainers for out-the-cab activities; ensure drivers are gaining maximum benefit from their time in the simulator.

The successful integration of Sydac's rail training product line of training simulators, includes; full cab driver training simulators, desktop computers, part task trainers, engineering and operational analysis simulators, desktop driver training simulators, console and full cab driver training simulators and virtual reality training suites.

Sydac's work with its customers doesn't stop once the simulator is delivered.

When Sydac supplies a simulator, they offer each customer their own customised support program titled, STEP Simulation Technology Enhancement Program.

Simulation Technology Enhancement Program

STEP ensures the simulator you purchase is an on-going solution and can be continually kept up-to-date with the very latest technological developments in the rail industry.

Sydac's STEP guarantee ensures all customers benefit from the appropriate updates to the simulator for at least ten years after purchase, so the simulator supplied, will continue to be just as relevant and valuable when it was first purchased.

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