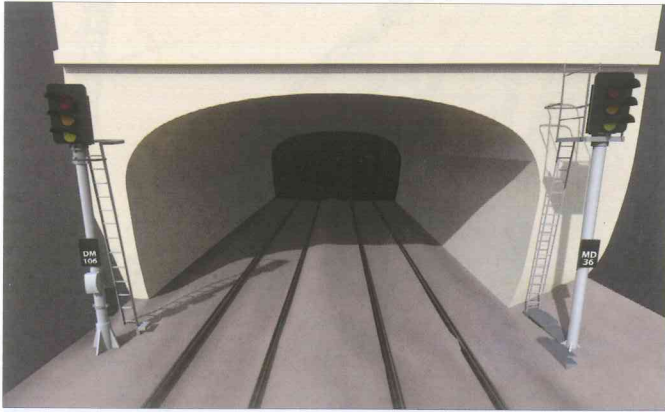


3D Visualisation – railway surveying for the playstation generation



Severn Partnership reports on its 3D modelling capability

In the February issue of RTM, Severn Partnership reported on a step improvement in its scanning capability using the FX GRP5000 kinematic laser scanning rail hardware, combining it with the very latest software, the latter producing SCO gauge clearance data from point clouds.

Severn Partnership has now announced its next planned development, a 3D modelling department, aiming to supply the demand from rail clients who want to move to the next level and maximise further 3D point cloud benefits.

Laser scanned point clouds are fantastic data sets in three dimensions that can be used to facilitate fully rendered 3D models for design and visualisations. These models can be produced faster and more accurately as 3D curves and surfaces can be 'snapped' directly to the point cloud.

In the rail industry, design and visualisations can help through all stages of planning and feasibility studies, known as the



GRIP stages and particularly helpful GRIP stage 2-6.

Severn Partnership 3D modelling department now has the capability to model the real and actual rail environment allowing the engineering consultancies more time and resources with designing and modelling the 'project' itself.

The 3D models themselves are used for planning and public consultation meetings and can be published on websites, used for high and low accuracy design and visualisations for signal sighting and interaction outside the rail industry such as level crossings.

The list of 3D applications is growing and developments into 4D and building information management (BIM) are not too

far away for Severn Partnership.

The 4th dimension, time when added to a 3D model, is ideal for signal sighting and simulating train driver environments and applications in general. In the 21st century, public expectation is high. People expect to view the environment in 3D and it be lifelike and more often than not in 4D – 'if it's not moving it's dead'.

Building information management is not only concerned with time within the 3D model but information attributed to various elements

making up the model which then allows for asset management.

The benefits to be gained from measuring the railway infrastructure efficiently and accurately will reduce costs, develop planning and maximise Network Rail's asset management capability to a new level.

For these reasons, Severn Partnership's new 3D modelling department will bring added value to the railway industry and further the commitment to a 24/7 railway which will require engineering to new standards.

FOR MORE INFORMATION

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