

## iXplore TRACK INSPECTOR

iXplore rail-road vehicles provide customers with a flexible option to perform track inspection without the need to use a much larger inspection train. Depending on the end-user requirements, vehicles ranging from 3.5 Ton to 18 Ton can be installed with TrackVue system and used to test track at speeds varying between 30 km/hr to 100 km/hr. With large sized vehicles, a dedicated on-board inspection laboratory area is available. With smaller vehicles, a passenger side data monitor is supplied to the operator to control image capture and review subsequent image data analysis. iXplore vehicles and track inspection equipment can be operated at any time of the day, under any weather condition, and provides the end-user with straightforward reports that can be used for maintenance immediately after the analysis has finished. This leads to streamlined and efficient resource utilisation from information acquisition to carrying out maintenance.

iXplore vehicles can be customised to make desired measurements on track condition. The vehicles are designed for modular integration of camera and laser equipment making it possible to perform visual track inspection, geometry and rail profile measurements on the same vehicle at the same time. TrackVue inspection system can be mounted in a variety of positions on the vehicle, either at the front, in the middle or at the back of the vehicle. If multiple inspection systems are used, their individual mounting position on the vehicle is determined by their component sizes and vehicle chassis clearances. The vehicles use both a differential GPS and a tacho feed for location indexing of data that is calibrated to ensure that all track measurements are indexed for time and location.

Data processing for geometry and rail-profile measurements is performed near real-time with on-board computers. A database records all geometry and profile exceptions that can be printed if needed. Visual image data processing is performed on-board the vehicle only for critical defects. For all other track condition monitoring measurements and defect recognition, the data is transferred to a back-office environment for off-line processing, or if resources permit, such data can be processed off-line on the vehicle itself. Rail Vision's Enhanced Visual Inspection software suite is available on-board iXplore vehicles for operator data analysis and results review.

Rail Vision can provide flexible terms for the provision of iXplore vehicles to its clients and customise them to meet their needs. The vehicles can be purchased or leased with pre-installed desired measurement systems. Rail Vision provides after sale maintenance and operator/driver training to the client for the use of these vehicles. The purchase or lease of iXplore vehicles allows the client to record track data as and when needed with a fully integrated system. The data is thereafter processed by Rail Vision as a part of its fully comprehensive data analysis service to the client, and the results of analysis are made available to them through a secure web portal. In addition, Rail Vision also provides a comprehensive track testing service with iXplore vehicles in the UK and certain other countries. Under these circumstances, iXplore vehicles are operated by Rail Vision staff. Please enquire further if you are interested in this option.

In summary, the use of iXplore vehicles offers a wide range of benefits to the end customer including:

- The initial capital investment and operational costs are much lower than with a large sized inspection train
- It is easier to deploy these vehicles on a range of railway lines with reduced possession time
- There is a greater flexibility to test track with these vehicles on a wide variety of mainline and branch routes and inspect them more frequently through inspection trains that have limited availability
- Automated track inspection using iXplore Track Inspector reduces the amount of foot patrolling due to better understanding of track condition, provides objective and repeatable results, and consequently leads to better utilisation of maintenance resources
- A fully comprehensive data analysis service from Rail Vision guarantees that the client receives accurate information on track condition that is essential for efficient asset and maintenance management
- It is easier to customise the vehicle hardware to suit client requirements than otherwise possible with an inspection train
- The reports and analysis can be directly uploaded on TrackPad tablets for track walking and maintenance

For more information, please contact Rail Vision

Rail Vision Europe Ltd  
2 Cygnus Court, Beverley Road,  
Pegasus Business Park, East Midlands Airport  
Castle Donington, Leicestershire, DE74 2SA, UK

Email: [enquiries@rail-vision.com](mailto:enquiries@rail-vision.com)  
[www.rail-vision.com](http://www.rail-vision.com)