

ATLAS

for Rail



ATLAS

ATLAS, by Enable My Team (EMT), is used to democratise data and create a digital twin from survey, design and real-time sources to enable a structured approach for strategic decision making and analytics, making railway maintenance faster, safer and cheaper.

ATLAS utilises Artificial Intelligence (AI), Computer Vision (CV) and Machine Learning (ML) models to automatically detect, extract and geolocate trackside assets, track assets and structures, from ingested Video and Point Cloud data. Assets are displayed on a web based GIS layer, providing instant access to survey data to visualise asset location. Change management across repeated runs allows users to see what has changed.

ATLAS also provides the ability to stream high density point cloud data and 3D models from within a web-browser, without the need for advanced computing power, reducing project costs and processing time, whilst increasing collaboration and data access.

ATLAS acts as a common data environment, structuring data to provide a deeper review of asset metadata. ATLAS API's can be utilised by other solutions to aid data exchange, automatic population of data in downstream tools / processes and further integrations with third party systems.

Key Features

- AI feature extraction
- Data federation
- Web-based
- Collaborative
- Integrations & APIs
- Data management

Enable My Team (EMT)

Enable My Team (EMT) is an Engineering Technology company specialising in asset information management, automation and artificial intelligence. Our aim is to empower projects by making data accessible for all. We are based in London, UK, but have worked on major infrastructure projects globally.



EMAIL
help@enablemyteam.com



WEBSITE
www.enablemyteam.com



LINKEDIN
Scan link to stay
up to date



Data Federation

ATLAS can ingest and federate a large variety of data-sets, including:

Design

- Schematics
- CAD / BIM 3D Models
- Simulation Tools
- Visualisation Tools
- Validation Tools

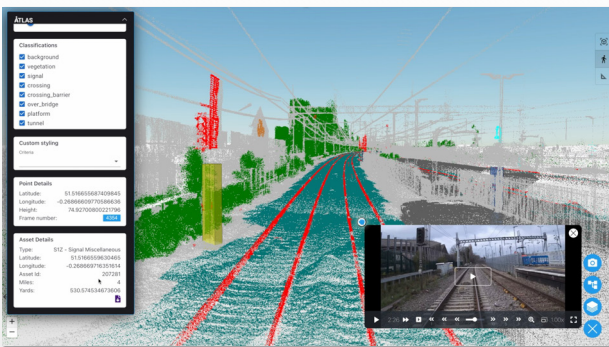
Operations & Maintenance

- Network Model
- Asset Databases / Registers
- IoT Sensors
- Maintenance Systems
- Environmental Data

Survey

- LiDAR / Point Clouds
- Video
- Thermal
- Aerial Data
- Train-bourne Data
- Field Tools

AI Feature Extraction

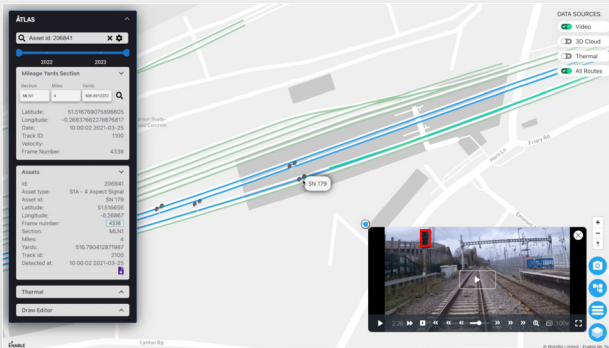


ATLAS uses state of the art artificial intelligence (AI) to automatically recognise, segment and cluster assets along the railway from point cloud scans. Our AI models have been trained on numerous asset classes including signals, platforms, rails, bridges, vegetation and more.

Our AI models can also extract the same asset classes from video feeds. We use optical character recognition to automatically extract text content such as signal ID plates. AI can also be used to convert these videos and images into 3D scenes.

By federating the data sets together, we can take the optimal information from each set and build a full picture. For example, for a detected signal, we can take the location data from the LiDAR, combined with the Signal ID extracted from the video.

Once we have an ID we can create relationships to existing references of this specific signal, in any third party system, maintenance database or schematic. ATLAS is built upon an asset information management system, which allows us to create this golden thread connecting the same asset between all data sources, removing silos.



Data Management & Validation

ATLAS can integrate with GIS Systems, Repositories, Enterprise Databases, simulation tools, validation tools or 3D modelling tools. ATLAS can run automated design validation against configurable asset schemas, or compare your design models to as-built surveys. All data within ATLAS is managed through ISO 19650 compliant change management processes, allowing for full auditability.

All the data within ATLAS is accessible through our open APIs. ATLAS acts as a Common Data Environment and has been proven to integrate with numerous tools within the rail ecosystem.

