

Digital Inspection of Roads

Optimize inspections of road assets with AI

HAL 24K

Poor condition of road infrastructure imposes a cost on users, the economy and the environment.

Road owners, operators and contractors need effective and objective road inspections to keep their infrastructure safe and compliant.

Automate your road inspections

HAL24K's Digital Inspection of Roads augments and digitalizes your daily road inspections using video footage from consumer-grade cameras. This is possible through the powerful combination of machine learning models to automatically detect assets and defects, and workflow software to easily view, correct, complement and share the results.

This helps your organization gain continuous insight in the state of road infrastructure, optimize reporting and maintenance planning.

Efficiency and competitive edge

- Save time, resources & cost
- Make inspections part of everyday operations
- Increase coverage area per inspector
- Optimize location and condition-based planning
- Multi-purpose – reuse beyond roads

Data-driven insight in infrastructure

- Control and leverage your own data
- Continuous insight in road conditions
- Build up knowledge base of data and information
- Continuously improve models and inspections

A clear view of the challenge

Effective road maintenance has its challenges as organizations need to:

- Improve inspections and optimize maintenance while reducing costs
- Fix defects before they threaten structural integrity
- Demonstrate that contractual and regulatory requirements are met
- Establish a safe working environment

Overcome these challenges with Digital Inspection of Roads

Safety and compliance

- Improve road inspector and road user safety
- Easy and transparent reporting
- Clear audit trails to demonstrate compliance
- Improve stakeholder management

Optimize inspections of road infrastructure

“As a contractor, Digital Inspection of Roads allows us and our partners to digitalize our inspection process and automate multiple manual tasks. With the solution we can inspect quicker, safer, better and completely transparent to our clients. We are delighted to be part of its creation.”

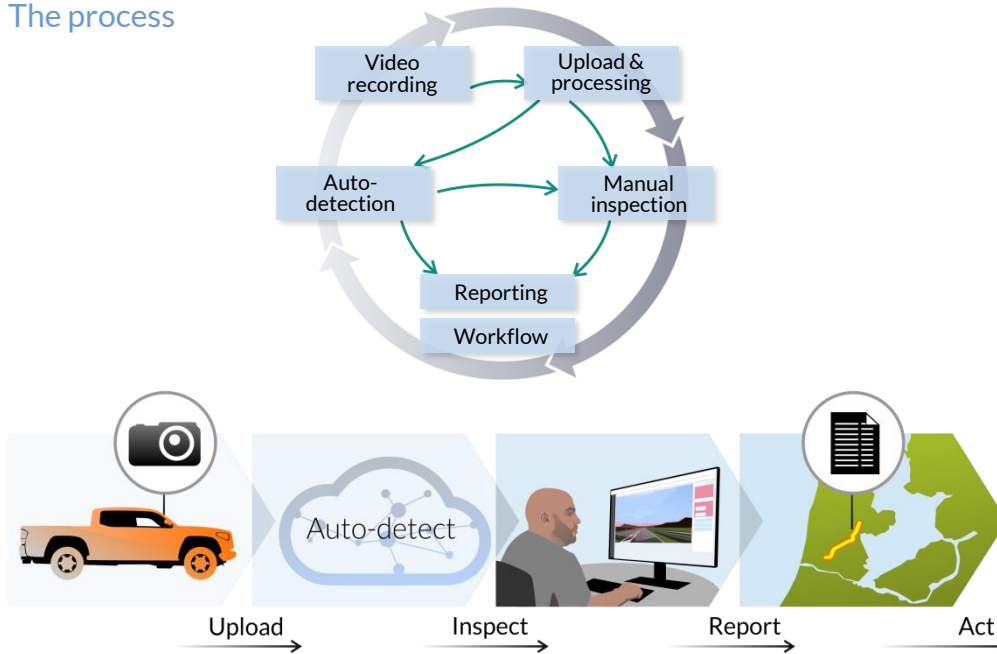
Dura Vermeer, The Netherlands



DURA VERMEER

Scalable and secure solution for data-driven road maintenance

The process



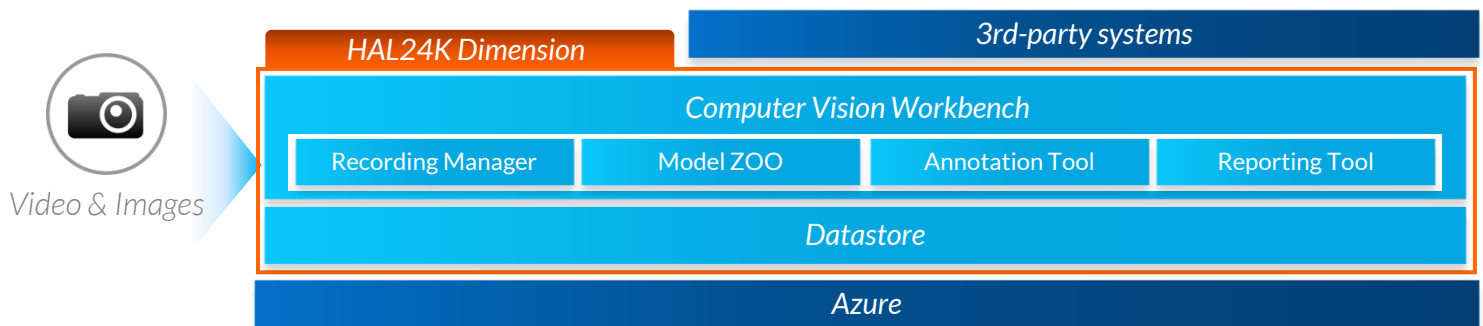
The platform

Based on our *Computer Vision Workbench* – an automated workflow module within *HAL24K Dimension* – the solution offers video preprocessing and pipeline management, annotation tools, auto-detection using machine learning models, and comprehensive reporting functionality.

Digital Inspection of Roads is robust, secure and open by design, enabling integration with third-party systems such as asset management, GIS, or CAD systems.

How it works

- Easy-to-use user interface
- Pre-trained models to detect specific assets & anomalies
- Models developed for any recording including from consumer-grade cameras
- Easy, secure & scalable video ingestion
- Smart frame splitting
- Interactive map to easily analyze detections
- Actionable lists of detections per inspection, including all relevant asset data
- Easy export of data
- Instant recovery of specific frames per detection for analysis & reporting
- Easy navigation through video frames to review detections in detail
- Correct or add detections to complete inspections
- In-built security & authorization management



Why HAL24K?

Award-winning HAL24K combines advanced data science with modelling, analysis and visualization. It means your teams can make real-time, data-driven decisions in even the most complex and multidimensional environments.



See what's possible

Contact HAL24K and request a demo
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