

Enterprise Asset Management for Civil Infrastructure - with IBM Maximo for Civil Infrastructure industry add-on



The importance of Civil Infrastructure to the global economy cannot be overstated. Roads, bridges, tunnels and other infrastructure are vital to the flow of goods and components around the world, and recent events have shown how vulnerable supply chains can be to even small changes. So keeping infrastructure operating correctly is a top priority for many asset managers, which entails rigorous and constant inspection and maintenance of assets. This also has the benefit of extending the life of the assets.

IBM Maximo for Civil Infrastructure, an extension of IBM Maximo Application Suite (MAS), provides organisations in the sector with new ways to extensively improve their enterprise asset management.

MAS uses sensor-based inputs and machine-learning technology to provide more consistent and efficient monitoring of infrastructure. This enables organisations to undertake more accurately targeted, and pre-emptive, maintenance, reducing the chance of asset failure.

Move away from traditional inspections

A key goal of MAS is to help the Civil Infrastructure sector move away from traditional manual inspections. These have often involved technicians scaling a structure to inspect it, or partially closing an asset to enable inspection - which can be dangerous, expensive and time-consuming.

By contrast, MAS enables organisations to use drones to inspect their structures, and therefore removes the need for traditional inspections. And MAS can use inputs from remote sensors, for example moisture or vibration sensors, as well as inputs from fixed cameras, to monitor and report on potential issues long before they become problems.

This reflects increasing adoption of drones in the Civil Infrastructure industry – a drone can enable an entire bridge to be scanned for structural defects in a single day, whilst manual inspection of the same structure could take 10 times as long.



MAS's Visual Inspection app also enables you to create visual models, which then enable the system to recognise and log visual defects such as:

- Rust
- Cracks
- Algae
- Spalling

MAS uses Artificial Intelligence capabilities on all the collected data to extract the key findings, according to the parameters that you set. MAS can also combine the data inputs with your historical data, to highlight any emerging anomalies. This enables you to initiate targeted action sooner.

Better outcomes from better data

MAS gives your Civil Infrastructure organisation a complete 'live' picture of the health of your assets (both fixed assets such as roads, and mobile assets such as plant), second-by-second. Data from sensors is added automatically, and manual data inputs from field teams can be added on-site using MAS's mobile capabilities. This ensures that any member of your team, whether in head office or in the field, can access live condition data and reports on any asset.

The improved monitoring and awareness of asset condition helps your organisation to:

- Extend the lifespan of assets
- Optimise maintenance
- Get early warnings of deterioration and damage
- Have a complete digital record of all work carried out

The data provided by MAS enables your infrastructure managers to work more efficiently, make better decisions, reduce cost and minimise potential risks.

Vegetation Management in Maximo

Civil Infrastructure organisations can also use Maximo to help control Vegetation Management in their projects. IBM Maximo Asset Performance Management Vegetation Management is a separate app that includes technology

from the Weather Company, to provide an end-to-end solution that injects intelligence into vegetation management workflows.

This ensures that you can now obtain greater visibility into the state of vegetation, and change the way decisions are made, to balance the competing needs of budgeting, risk management (for example: flooding), and biodiversity requirements.

The solution enables transparency in contracting, auditing, and regulatory processes with remote monitoring and evidence-based reporting capabilities. Scoring models can recommend actions by combining various data sets, allowing you to spend less time on obvious actions and focus on more complex decisions.

Additional benefits of MAS for Civil Infrastructure

Maximo Application Suite contains a range of apps to help organisations manage assets and workflow, including:

- **Maximo Monitor** – monitor and detect anomalies
- **Maximo Health** – gives you a 360-degree view of the state of your assets' health
- **Maximo Assist** – enable your teams to access asset and work history, and get advice from remote experts
- **Digital Twin** – enables you to access a digital model of an asset, for comparison with live data

Maximo Civil Infrastructure also contains modules to enable your organisation to track contractor work, purchase orders and contracts more effectively. This helps to reduce your costs, and enables you to keep a full digital record of contractor activity.

Automated & intelligent EAM

Maximo Civil Infrastructure gives your business the perfect opportunity to transition towards more automated and intelligent management of Civil Infrastructure. It enhances the core Maximo Manage functionality using add-ons configured specifically for the challenges facing this industry.

For a no-obligation discussion or a demonstration, contact us now on info@peluk.org





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About Peacock Engineering

Peacock Engineering Ltd was established to deliver a diverse range of Asset and Service Management solutions to asset intensive industries.

Our consulting team is made up of long standing IBM Maximo professionals, each with an average of 12 years' experience in the product and who, together, have amassed over 400 man-years of Maximo systems implementation experience.

From this knowledge and practical application, a proven and trusted process-driven methodology has emerged. With the methodology in place, the ongoing challenge is to improve delivery efficiency and provide affordable solutions, using a mix of services and systems provisioning models, to meet a broad range of industry verticals.

