YUZEDATA™

CASE STUDY: OPTIMIZING CRANE MAINTENANCE

OVERVIEW

Client: General Cranes
Location: Australia
Industry: Construction and Heavy Machinery
Solution: YuzeData Connected Data and Integration Platform
Key Benefits: Automated Maintenance Scheduling, Reduced Downtime, Improved Data Accuracy

Managing the maintenance of cranes deployed to construction sites, in accordance with recommended servicing schedules, presented a challenge for our client due to the manual processes in place for tracking engine hours. The risks and costs associated with failure to maintain a crane engine are significant for this construction tower crane leading company. A complete engine failure on a tower crane can be catastrophic and if the crane is actively deployed at height, it could cost anywhere between $20,000 - $110,000 to disassemble and replace the engine.

Preventing downtime on a tower crane can also have other significant benefits for crane leasing companies and the customers that utilize their cranes. The tower crane is an essential piece of equipment in construction projects, and any downtime can lead to delays, increased costs or reduced productivity.

Benefits of preventing downtime include:

1. **Reduced Repair Costs**: Early detection through routine maintenance avoids costly major repairs.
2. **Increased Productivity**: Efficient cranes keep projects on schedule.
3. **Avoidance of Delays**: Timely maintenance prevents delays that incur additional costs and fines.
4. **Improved Safety**: Well-maintained cranes reduce the risk of accidents, lowering worker compensation claims and potential lawsuits.

Overall, preventing downtime on a tower crane can have significant benefits for crane leasing companies, their clients, and the general public.

> *"YuzeData made it incredibly easy to connect the IoT platforms on our tower cranes to our core company systems. This unlocked new gains in efficiency through industrial automation and improved the service to our clients."*

George Micevski, General Manager

GENERAL CRANES

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CHALLENGES

For peak performance, cranes need regular servicing, but our client faced several challenges with their current manual system:

- Operating hours were either emailed via paper logs or tracked by IoT, then manually entered in Excel, leading to errors and duplicated efforts.
- Log sheets were often submitted late or not at all, causing gaps in records.
- The manual Excel tracking didn't reflect real-time engine hours, causing delays in updates.
- Errors in engine hour records risked exceeding recommended service intervals.
- Overdue services elevated the risk of downtime, negatively affecting both customer relationships and site safety.
- Lack of real-time data hampered transparency with clients regarding maintenance status

SOLUTION

YuzeData's Connected Data Platform provides accurate visibility and management of scheduled maintenance requirements. In turn, this enables our client to offer improved levels of service and reliability of its assets during rental deployment.

- YuzeData integrates with the crane's existing IoT device to record engine hours at set intervals. This ensures up-to-date operating data and timely maintenance, aligning with recommended service schedules.
- YuzeData sends an email alert to the service team a set number of hours before the scheduled service, allowing for efficient planning of the service visit.
- Service forms for tower cranes are auto-generated by YuzeData in Gocanvas with crane and site details pre-filled, allowing supervisors to schedule service technicians and technicians to focus on the work at hand. This optimizes maintenance planning and minimizes task duration.
- After service completion, YuzeData is alerted and logs the latest service date, setting the stage for the next scheduled maintenance.

> *"YuzeData integrated seamlessly with our Gocanvas API and enabled the bringing together of IT/OT data from the construction site to the maintenance office. Their connectors now make this available for all our customers."*

Justin Beard, Director of Partnerships gocanvas

THE BUSINESS CASE

IMPROVED SCHEDULING

AUTOMATED TRACKING

REDUCED INCIDENTS

INCREASED PRODUCTIVITY

IMPROVED COLLABORATION

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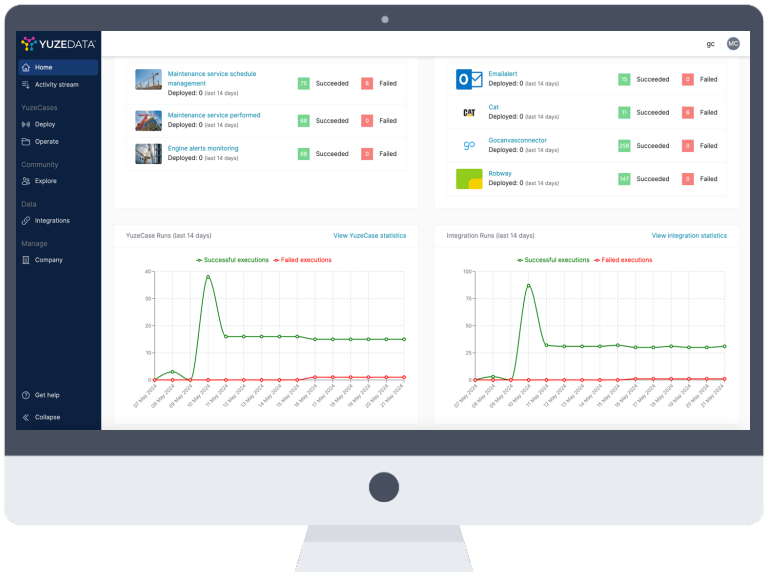

FUNCTIONALITY

The solution included the following key YuzeData capabilities:

- Integration connectors to the following systems:
    - Robway Safety for crane IoT and sensor data
    - Caterpillar for engine telematics and fuel consumption
    - Gocanvas for maintenance management
    - Excel integration for master data management
    - Outlook integration for automated notifications
- Asset master data management and mapping between systems
- Management reports and digests of key metrics
- Scheduled automations to eliminate manual tasks
- Automated error logging for ease of integration maintenance
- Fully secure cloud SaaS environment certified to ISO27001 and SOC-2 standards
- Analytics and data point exploration
- Activity stream and automated action tracking

> *“YuzeData’s solution has significantly improved General Cranes’ asset management capabilities, saving costs and time whilst improving our client relationships”*
>
> **Trevor Fox, Operations / Plant Manager General Cranes**

YUZEDATA CONNECTORS DEPLOYED

Robway Safety

Caterpillar

Gocanvas

Outlook

GET IN TOUCH

WEBSITE

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