

CASE STUDY: Remote Engineering Tool

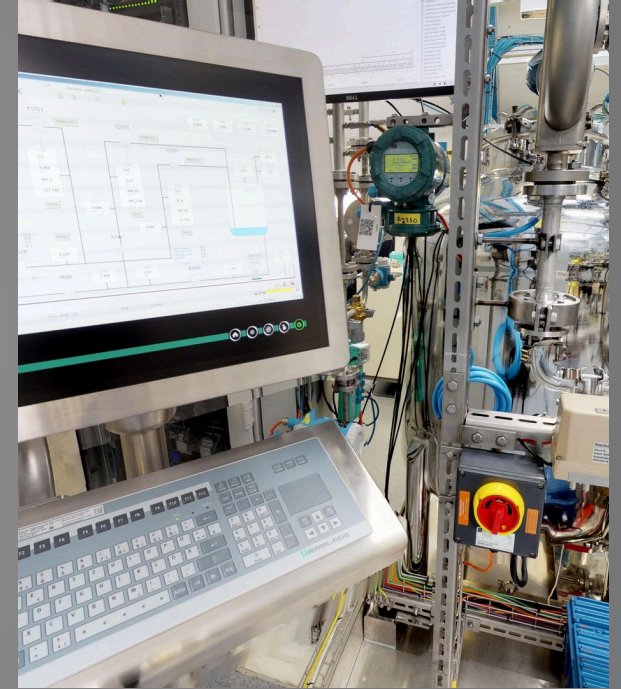
CHALLENGE

Our customer had limited site access on their engineering projects resulting in the need to capture site information during survey/FEED being crucial.

Bilfinger UK were awarded a contract to create a solution that would capture as much detail as possible to significantly reduce site visits and allow traditional on-site meetings, design decisions, site familiarisation and planning discussions to be held remotely.

SOLUTION

- Using the Bilfinger Industrial 360° platform, we were able to scan the customer's site in less than a day capturing high detail imagery.
- We were also able to add measurement data to the site imagery utilising a 'street view' type of environment for future works reference.



BENEFITS | Significant Reduction in On-Site Time | Models Available for Future Use | Reduction in Project Variation |

TECHNOLOGY USED

Bilfinger Industrial 360°

Bilfinger Industrial 360° is a reliable, fast and approachable solution that enabled us to create an interactive 'street view' style model of our customers assets while simultaneously capturing details engineering measurement data.

The Bilfinger Industrial 360° virtual walkthrough offering can be used for many purposes including:

- Embedding of asset documentation and information.
- Visualisation of equipment for training purposes.
- Maintenance objectives and turnarounds.
- Engineering design.

It provides fast, user-friendly and very cost-effective insight into our customer's plants.

CASE STUDY: Bearing Failure Prediction Model

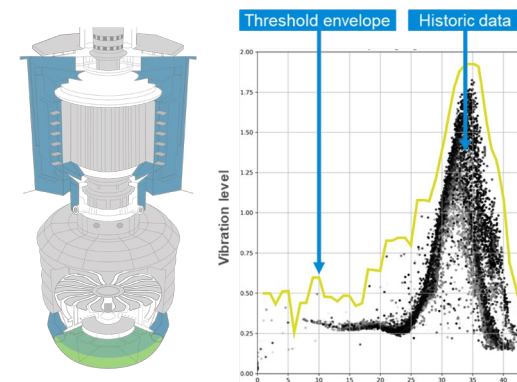
CHALLENGE

Our customer needed to minimise its bearing failures on their hydro power generators on-site, which were causing 2 months of unplanned outage.

Bilfinger UK were awarded a contract to create a solution to predict bearings failures before they happened to remove the implications of downtime on-site.

SOLUTION

- Using the Bilfinger Connected Asset Performance (*BCAP*) platform, we developed a SMART early failure predictor.
- The predictor was used to signal vibration levels that had started to move out of defined thresholds. This was not to provide alerts of failures in thresholds but instead to deliver early indication levels that were used for failure predictions.



BENEFITS | 5% Cost Reduction | 8% Uptime Improvement |

TECHNOLOGY USED

Bilfinger Connected Asset Performance (BCAP)

Bilfinger Connected Asset Performance (BCAP) can significantly increase the effectiveness of a plant, to decrease maintenance costs and to reduce unplanned downtimes. With this platform we can offer consulting, digital networking, data collection and analysis as well as forward-looking maintenance all from a single source.

The benefits of our BCAP platform include:

- 7-15% Enhanced effectiveness of the overall plant.
- 10-30% Reduced maintenance costs.
- 15% Increased work productivity.
- Up to 25% Reduction of unplanned downtimes.
- Generally amortisation of employed capital within one year.

CASE STUDY: Downtime Prediction Model

CHALLENGE

Our customer was incurring significant costs due to a high number of unplanned stops of their mill during operation.

Bilfinger UK were awarded a contract to create a solution to remove the issue, which was causing productivity issues and resulting in the start and stop cycles putting significant wear on the mill components, that was increasing maintenance costs.

SOLUTION

- Using the Bilfinger Connected Asset Performance (BCAP) platform, we implemented a decision-tree based machine-learning model predicting 90% of stops 10 minutes in advance.
- The solution also uses analytics to provide the operators with prevention recommendations to prevent future unplanned stops.



BENEFITS | 30% Maintenance Cost Reduction | 3% Productivity Improvement |

TECHNOLOGY USED

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CASE STUDY: Scaffolding Digital Forms Creation

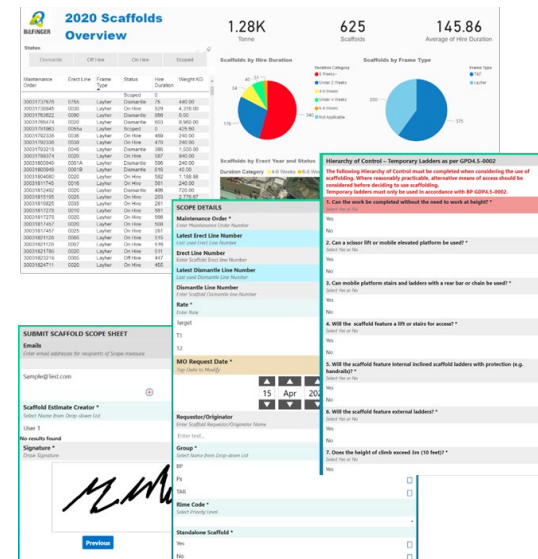
CHALLENGE

Our customer needed to review their existing, paper heavy process across their scaffold life cycle and implement technology to improve efficiency across their site.

Bilfinger UK were awarded a contract to create a solution that would provide digital forms to be created on their scaffolding projects.

SOLUTION

- Using the Bilfinger Scaffolding Portal, we were able to create a reporting solution that provided digital forms on scaffolding projects.
- The solution automatically generated reports, registers and approval documentation.
- The solution has an incorporated workflow that removes the need to locate sign-offs or details of work carried out.
- The solution captured work area data such as GPS, images and mark-ups.



BENEFITS | 5% Cost Saving In Field | Administration & Reporting Cost Savings |

TECHNOLOGY USED

Bilfinger Scaffold Portal

The Bilfinger Scaffold Portal digitises the scaffold inventory and management process by introducing significant process improvements, as well as full transparency of activities on-site and by providing supervisory personnel access to a digital twin for all associated documentation.

The Bilfinger Scaffold Portal can measure:

- Long term scaffolding tonnage
- Scaffolding dimensions and tonnage
- Scaffolds dismantles due
- Time and date stamp scaffolding inspections
- Defects
- Scaffold requests
- Ladder register and inspection
- Scaffold disposal
- Site Stock module to allow easy transfer of stock in/out