

VISUAL FACTORY SOLUTION

“The Visual Factory solution was the key enabler in achieving significant Operational improvements. We now have a real-time view of our KPIs, and a system which empowers Associates, Team Leads and Value Stream Managers to make immediate fact based decisions to run the business more effectively. The system has also been instrumental in developing a culture of Continuous Improvement”.

Operations Manager



THE CHALLENGE

Our client, a large medical device company, operates a 24x7 manufacturing facility in Co. Cork, Ireland. They are part of a greater global organisation employing in excess of 100,000 people worldwide. Their main objective was to increase efficiencies in manufacturing.

To help them achieve their Continuous Improvement objectives they identified a number of Operational Metrics. The client required a system that would present these Operational Metrics in a real-time dashboard, at an asset level, against targets, with the added capability to roll up to a Value Stream and Site level. Mobility support was also essential.

A key requirement was to provide a centralized dashboard which displayed Operational Metrics from multiple data sources in a transparent manner to Operations, Management and Support staff, including the provision of alerts and information which could be actionable. Data sources included ERP, MES, Energy, and Automation Systems, which were based on several technologies including OPC, Oracle and SQL Server.

The client considered several vendors in the Business Intelligence and Visualization industry and conducted a full assessment, before finalizing on the ICONICS based solution designed and implemented by Dataworks.

DATAWORKS ROLE

FORMULATING THE OPTIMAL SOLUTION

When approaching this project we followed the Dataworks Software Development Life Cycle. This process has been developed, tested and perfected over the past 20 years and has proven to yield exceptional results when formulating an Optimal Solution in partnership with our clients.

In order to ensure that we could capture the client's true business need our team met several times with the clients' Operations and Lean project representatives. This allowed us to accurately understand their requirements and gauge the business environment and challenges they were facing.

At this stage of the process the Dataworks Innovation Team and the Technology Team collaborated to consider the different options available within our technology stack to meet their requirements, while also adhering to the clients IT standards.

Once we finalised and agreed the Optimal Solution it was developed & rolled out in an Agile manner in accordance with our Software Development Life Cycle.

CONSTRUCTION & USER ACCEPTANCE

Using ICONICS technology we developed a dynamic dashboard that allowed the client to access a live scoreboard of their Metrics that can be viewed from any mobile device. Each dashboard allows the user to visualise real time KPI Data against targets at an asset level.

Real time opportunities and alerts are visible immediately – allowing for greater control and immediate action to be taken where needed.

TECHNOLOGIES AND ARCHITECTURE:

As the ICONICS technology is built on open industry standards, BridgeWorX was used as the ETL tool to collect data from a variety of data sources from Operational, Energy and Environmental data. This KPI data, collated and normalised into a KPI Data Model, was processed by our KPI Symbol Library to deliver the front-end dashboard.

AssetWorX was used to represent the clients' production Assets in an easy to navigate tool, compliant with ISA-95 Standard. GraphworX and KPIWorX were utilized to deliver the KPI Data Model and to configure the KPI driven dashboards. ICONICS WebHMI, MobileHMI and AnyGlass technologies were used to deliver a cross platform (Windows, iOS and Android) interface, which was deployed on large screens in production, desktop web clients and mobile devices.

CORE BUSINESS BENEFITS

OVERALL INCREASED EFFICIENCY – 7%

INCREASED OUTPUT – 5%

SCRAP REDUCTION ACROSS THE VALUE STREAM

REDUCTION IN WIP

REDUCTION IN NON CONFORMANCES AND CORRECTIVE ACTIONS

INCREASED EQUIPMENT UTILISATION

INCREASED SCHEDULE ATTAINMENT

HUGE REDUCTIONS IN TIME SPENT CAPTURING, COLLATING AND REPORTING ON KPI'S

EMPOWERING OPERATIONS STAFF AND FOSTERING CONTINUOUS IMPROVEMENT CULTURE

ROI OF IN EXCESS OF 200%

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