

Increasing shop floor efficiency with mobile-enabled MES reporting

Client Description

The Client is a world-class Tier-1 automotive supplier

Industry

Automotive
Manufacturing

Technologies

SSRS, Nysus MES,
InSequence MES,
Web for Mobile
Access

Challenge

The Client's manufacturing processes are data-intensive, and decision-making data-driven. Manufacturing data is stored in two separate MES software packages: Nysus and InSequence. With shop floor staff always on the move, the Client was challenged with a lack of centralized, easily accessible, and mobile-responsive reporting. Furthermore, the Client does not have anyone on staff familiar with the undocumented Nysus MES data model, so any custom reporting presented a significant challenge, even more so when attempting to blend data with the InSequence MES.

Our Solution

proSkale tackled the issues by leveraging its proven phased methodology:

- The team began with a thorough analysis of database structures for both Nysus and InSequence MES, documenting the Nysus structure in particular given the lack of OOTB documentation.
- Once the structure was understood and key reporting parameters identified, proSkale created a centralized report using SSRS (SQL Server Reporting Services). Included in this was logic to seamlessly switch between Nysus and InSequence MES reports based on user input.
- A web-based application was then designed as an interface for easy and low-maintenance mobile access and included an image display for images corresponding to a selected item. With images being the most frequently used feature, the display was moved to the top of the report.
- A thorough testing process followed to ensure reports were functioning as expected. Once completed, the web-based interface was deployed for mobile access to the key reports.

Results

A number of results were achieved as a result of proSkale team's guidance and efforts:

- Shop floor efficiency was increased as staff now had access to the data they need at their fingertips, rather than specific workstations.
- The unified MES report provided a consistent view across Nysus and InSequence data.
- Demystifying the Nysus data structure allowed the customer to generate additional custom reports from the MES.
- Mobile-enabling the MES report via a web-based implementation meant the solution will require minimal maintenance from a lean IT team.

Leaning on its MES and technological expertise, the proSkale team completed the work within the planned budget despite several challenges that arose while investigating Nysus' black box-like data structures.