



APS Success Story

Metal Works

(by Boja Systems S.L.)

Company

Boja Systems SL is a Spanish IT consulting company specializing in manufacturing systems. Boja has been a long-term partner of MangoGem as well as for R&D activities as regarding the implementation of MangoGem's IT solutions in the Spanish and German markets. Boja has been in charge of several pilot projects with the ORITAMES APS and has implemented several use cases with this software.

Use Case

Boja has implemented the ORITAMES APS system at a Spanish metal works company (hereunder designated as Fabrica) that subcontracts manufacturing of metal parts for the defense & security industry. For confidentiality and competitiveness reasons, the company wishes to remain unidentified but has agreed to share its results anonymously and to allow Boja to produce a testimonial.



Fabrica processes steel and aluminum metal rods first through heat processes in furnaces. The furnaces are batch equipment that requires significant setup times where optimal loading is a complex process. After the furnaces, the parts go through a hardening process that feeds forging and rolling equipment. The time intervals between those processes is also a constraint, as well as the fact that the rolling mills should ideally not stop production.

Objectives

The main objectives of Fabrica was to optimally load the batch furnaces, reduce the setups and eliminate late deliveries, while reducing overall project cycle times. Before using the APS, they needed a very high Work-In-Process (WIP) to keep the lines going, which meant a very high capital cost. Besides the direct improvement of KPIs, Fabrica wanted to replace its complex and error prone planning spreadsheets. Trying to use an APS was originally seen as a challenging Proof of Concept.

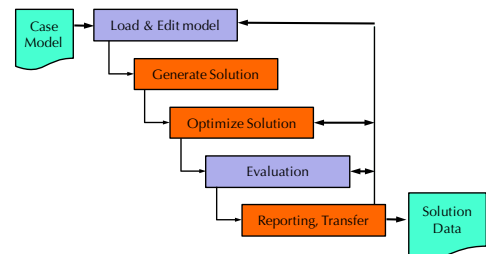
Why ORITAMES ?

ORITAMES was chosen because it seemed the only system to fit with Fabrica's optimization requirements and that would not require a lot of effort to use because it provided automated planning. The willingness of Boja to conduct a simple Proof of Concept that proved successful convinced them to implement the APS.

Solution

In late 2017, we started with a successful Proof of Concept. All data was easily imported from MS Excel and configured in ORITAMES. In one month, we were able to build and validate the model. This demonstrated the feasibility and provided proof that it would be possible to reduce WIP and cycle times by at least 30%. Implementation started directly afterwards by integration with the ERP system (SAP) to get production orders and BOMs. All other data were kept in a Master File in ORITAMES. After 4 months we were able to start using ORITAMES.

ORITAMES is used every week to schedule with an horizon of 4 months. We also run a detailed schedule for 2 weeks ahead. We use the scheduler every day to update the weekly plan or in case of an unexpected event or rush order.



Benefits

Using ORITAMES confirmed the results of the POC, with a WIP reduction of more than 30% as well as elimination of unnecessary setups. The number of stops at the rolling mills dropped close to zero. The planning effort was reduced from more than 20 man-hours per week to less than 2 hours.

Testimonial

"We successfully implemented ORITAMES APS at several sites in Spain [...] which improved planning quality and optimized production. Fabrica recovered their APS investment in less than 1 year."

-- Carlos Blanco, Principal, Boja Systems SL, Spain info@bojasl.com

www.oritames.com

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