



Success story

# VirtusLab enables recipe-less manufacturing with CPQ

Our client, a flexographic printing manufacturer, specialises in producing labels and soft packaging. Their customers demand an accurate and quick estimation of production costs and lead time. Our client manually calculated the complicated production process, which consumes much time and is prone to a large error margin. To address these issues, VirtusLab implemented a MES and “Configure, Price, Quote” (CPQ) system, which not only accelerated the process and lowered production costs but also enhanced the accuracy of cost estimations.



## The Challenge

The time-consuming and error-prone manual calculation presented only a fraction of the factors determining the price of the client's order. This process made the price estimation inaccurate, often resulting in a bad customer experience. Two significant challenges compounded the manual approach:

First, our client used legacy production systems that lacked real-time data delivery. Second, they manually managed many Bills of Materials (BoM) that listed all components and raw materials needed for each production. Ultimately, the process prolonged the production preparation time unacceptably. To address these issues, our client approached VirtusLab (VL).



## The solution

VirtusLab optimised the manufacturing process by implementing a Manufacturing Execution System (MES), which incorporated legacy systems and IIoT solutions to gather real-time data. By monitoring equipment and processes in real-time, our client was able to identify and resolve issues quickly, leading to improved production efficiency and reduced downtime. The collected data provided a foundation for a more accurate CPQ system that automated intricate production procedures, eliminating inaccuracies in manual BOM management and increasing the manufacturer's overall adaptability. VL enabled dependency graphs to facilitate the flow of goods, reducing lead times and identifying bottlenecks for more effective project management. Our client was able to increase efficiency and ultimately reduce costs



## The results

The MES and CPQ improved production efficiency, reduced downtime, and increased overall equipment effectiveness, improving profitability and customer satisfaction. Our client can:

- 1 Calculate orders automatically.
- 2 Calculate BOM based on dependencies.
- 3 Calculate order costs automatically.
- 4 Estimate the delivery time (ETA) with high accuracy automatically.

With the crucial implementation of MES and CPQ, our client remains competitive in today's rapidly evolving manufacturing environment.



## The tech stack

### / Languages

- Scala
- Angular

### / Database

- Slick

### / Eventing platform

- Akka

### / Infrastructure

- Play
- Cats
- Jenkins

 Scala ANGULAR Slick akka play Cats Jenkins

# About VirtusLab

At VirtusLab, we aim to lead in software technology, working consistently to enhance efficiency. Our profound commitment to research and development and a dedicated focus on emerging trends and inspirations fuels an innovative culture. This ethos precisely guides advancing our cutting-edge solutions, inviting collaboration to expand the boundaries of software technology collectively. We welcome you to be a part of this transformative journey.

[Let's connect](#)

## Contact Details

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