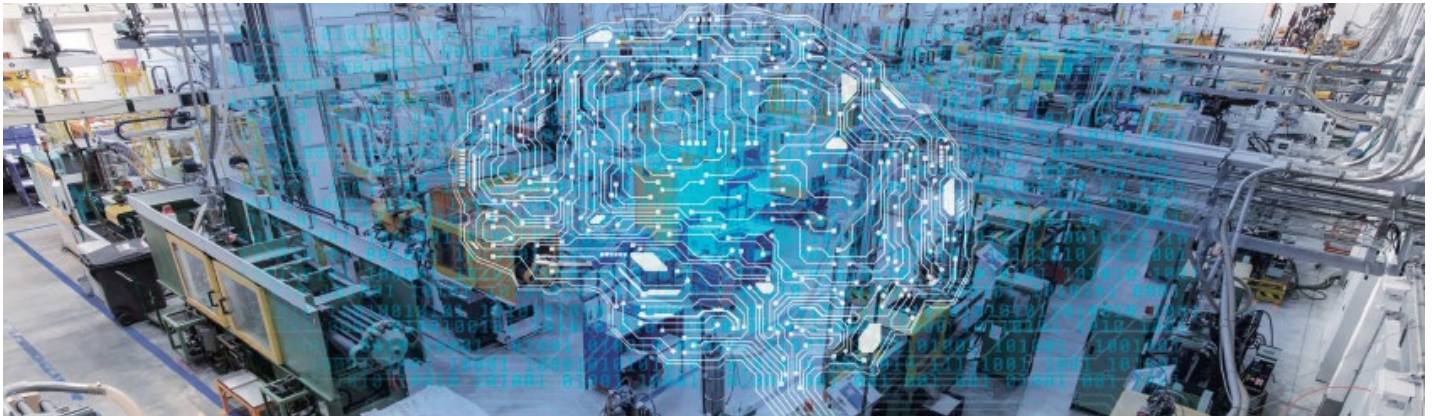


FUJITSU Manufacturing Industry Solution COLMINA Sequence Planning Optimization

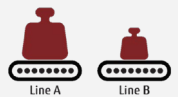
Fujitsu's latest algorithms automatically compute production sequence planning and optimize production KPIs for multiple purposes.



We provide surprising solutions to the challenges faced at production sites, which are becoming discontinuous, increasingly diverse and complex.

Issues

Only a limited number of people can make production order plans, which is a heavy burden.



In job shop type production, it is difficult to optimize the operation rate of equipment and the staff.



It takes time to formulate plans, so once they are decided, they cannot be changed easily.

Factories cannot be optimized without considering multiple criteria.



Solution 1

Now that information systems can be used to make plans, anyone can make production sequence plans at any time.



Solution 2

It is easy and simple to use, and even if you are not a veteran, you can make logical plans.



Solution 3

It is now possible to quickly and easily develop sophisticated plans that meet multiple criteria.



Solution 4

Simulations in which the number of workers in a booth was changed can also be compared in a short period of time, enabling appropriate use of staff.

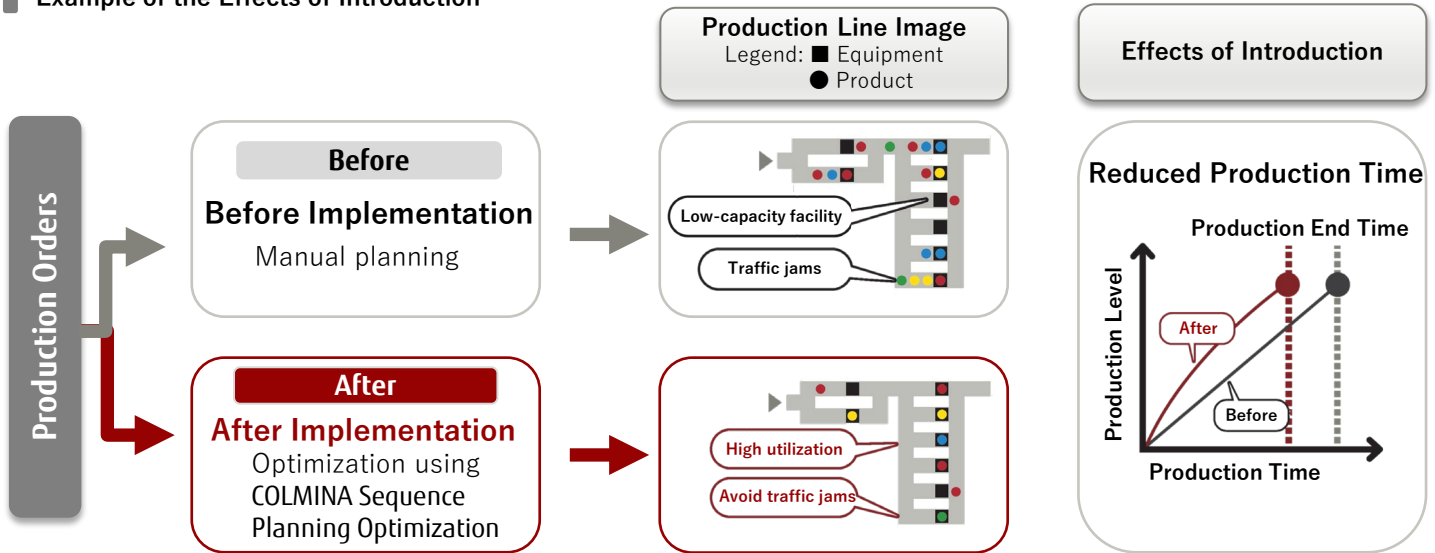


COLMINA Sequence Planning Optimization Product Overview

Enables production sequence planning to meet multiple KPIs through simplified simulation and multi-objective optimization.

*KPIs: Production lead standardization, cost, number of changeovers/time, and percentage of on time delivery

Example of the Effects of Introduction



Customer examples of actual deployment benefits

- ◆ Planning time is **1/10** of what it used to be.
- ◆ Production lead time was **decreased by 10%** from existing plans.
- ◆ Work in progress inventory has decreased.
- ◆ We were able to meet the deadline while leveling the workload.

Feature 1 Simplified Production Simulator Function

Easy input, and no specialized skills required

- Input has Excel-like usability
- Intuitive UI for easy input
- Model simulation with multiple files



Operation setting involves no programming

- Operation can be set without any programming
- Simulation models only need 10 motion setting commands



Simulation considering physical conditions

- Consider physical conditions (Distances in factory layouts, etc.)
- Calculate congestion, buffers, and operator interference



Feature 2 Combination Optimization Function

Cutting-edge technology enables faster simulation

- The combination of genetic algorithms and model predictive control technology enables faster calculation



*The optimization engine is OPTEMILIS, which is developed by Fujitsu Laboratories, Ltd.

Multi-objective optimization

- Uses multi-objective optimization in addition to single-objective optimization
- Decide plans for production sequence planning while reviewing trade-offs for multiple KPIs.



For more information about COLMINA Sequence Planning Optimization, please visit the product website.

COLMINA SPO

Search

- Please feel free to request materials and product demonstrations from the product website.



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