



SIMUL8 Case Study Consultancy Support

MANUFACTURING SOLUTIONS

Supporting Strategic Change and Improvement

Providing **Confidence** for **Change** through **Evidence** based production modelling

Indesit are a leading household appliance manufacturer, employing 20,000 people worldwide.

SIMUL8 software has been used within Indesit since 2002 to assess proposed production facility changes and to design and develop manufacturing systems.

Automatic allocation of product types to assembly lines was required to improve performance

The existing production line at one of the company's manufacturing facilities relied on human product allocation from eight assembly lines into a fourteen lane sortation area.

Due to the complicated product mix in the factory, it was a highly complex process to assess which item should go to which lane.

To change lane allocations in a quick and accurate manner was a highly complex and time consuming process.

Getting the lane allocation wrong, or not changing it in time for the design and build of new product ranges caused production bottlenecks, possible production losses and potential loss of service levels.

To maximise the efficiency of the process a number of process enhancements were made, including the installation of an automatic conveyor system to allocate a range of unique products to sortation tracks.

SIMUL8 was used to design and test the control rules of the system before installing, to ensure the optimal design was selected.

Provide the evidence for change

SIMUL8 Software was configured to run on actual data collected from barcode scanners in factory production lines. This enabled a validation exercise to take place, giving conclusive evidence that the simulation was behaving as the system would under general working conditions.

As a result it was possible to experiment with a series of different control rules to find the best automated allocation system before this was implemented in the real factory.

Provide quick and easy what-if analysis

The simulation tested a wide range of control rules in order to find the one that best optimised performance, so that this could be used in the real factories and provide confidence that the new process design was efficient and fit for purpose.

As the simulation worked with actual production data it was able to provide results with an added level of accuracy. The solution given by SIMUL8 was used to communicate proposals to company management and the simulation was used to train personnel in sortation and distribution procedures.

Key Benefits

Once the selection of possible rule sets had been tested, SIMUL8 proved which setup performed best, and used its output data to dictate routing decisions through the real factory.

Practical benefits of using SIMUL8 software for this work include:

- More effective management of the complex product mix
- Increased understanding of the entire system through the use of the simulation
- Confidence that proposed designs and solutions actually work prior to installation

Due to the success of this project SIMUL8 software is now used regularly within Indesit to test all assembly line “what-if” scenarios and provide confidence that potential changes to processes are designed efficiently and deliver the level of benefits required.

Find Out More

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