



# Complex solution for manufacturers of automotive parts

Futaba Czech, s.r.o.



Production plant Havlíčkův Brod (Czech Republic) Branch Automotive industry Number of employees 850 Sales 3 billion CZK Web page www.fcz.cz Implementation partner AIMTEC a. s. Solution being implemented DCIxWMS, DCIxMES, Asprova

Futaba Czech is a subsidiary of Japanese Futaba Industrial Co., Ltd. This engineering company manufactures its products mainly of steel. Deliveries go primarily to automotive industry. Our commodities are parts of the bodywork, exhausts, reinforcements of dashboards and functional parts, such as chassis parts for the car axles. 60 % of production goes to the TPCA carmaker. Other customers are Toyota in France, Suzuki in Hungary and PSA in France. Part of its production goes also to the Faurecia company.



### Project details Phase 1

Since 2005 DCIxWMS in shipping. The system was extended to material receipt, registration of finished products, and registration of rejects in 2010.

#### Phase 2

2014 - extension and upgrade of the existing DCIxWMS system.

## Phase 3

2014 – implementation of DCIxMES, a system for data collection. At first for two welding lines, later for ten moulding lines.

#### Phase 4

April 2014 – implementation of the Asprova APS system for advanced planning and production management.



"Asprova has opened our eyes and thanks to it, we have discovered a number of errors in the original system, which we had been using for 10 years before. For example, we had not had current information on line cycles, number of operators, engineering and manufacturing processes. Integration of APS onto the MES and WMS systems is also an advantage.

Radek Slanař, General Manager, Futaba Czech, s.r.o.

#### Project challenges and risks

- Incomplete and incorrect input data for production planning.
- Discontinuous planning relation between moulding and welding.
- Inaccurate time buffers among individual working places.
- High risk of failed JIT production interruption for large car manufacturers.
- Risk of error rates at purchases of large and heavy input materials with vague delivery amounts.
- High people fluctuation as viewed from the WMS perspective.

#### Initial situation

The Futaba Czech company has been collaborating with the AIMTEC company since a longer time already. In 2010 the company decided to extend its existing DCIxWMS solution for warehouse management and cover additionally also material receipt, registering finished products, and registering rejects. The solution had covered the shipment only by then. In 2014 the Futaba company received a request from the Faurecia company, its customer, to mark parts and trace them within the manufacture process. The Futaba management contacted its supplier, the AIMTEC company, again, and asked for the DCIxMES solution.

In 2013 people in Futaba Czech started to deal with system data and revealed that their existing ERP system from the headquarters, called FCZ, was failing to process large data volumes coming from customers mainly as orders and forecasts. The Futaba Czech company organized a tender for a production planning system in 2013. Futaba management decided in favour of Asprova and AIMTEC as the supplier. The APS system was the simplest one for planners from the customer's perspective, and it was more flexible in terms of integration with already existing systems. An advantage was also the fact that Asprova is a Japanese system.

# Customer's requirements and objectives

- Easier and more accurate book records of material flows and production in progress.
- Visualizing real state in production in order to ensure 100 % deliveries.
- Verifiable correct records including stocktakings.
- Satisfaction of customer requirements.
- Ensuring 100 % traceability.
- Quality control and rejects registering.
- Planning of the whole production 3 main processes in an advanced APS system.

#### Solution

Requirement of material flow and production in progress overview as well as of current consumption within the DCIxWMS system from AIMTEC came from the book--keeping and planning department of Futaba. In the same year the AIMTEC company implemented the DCIxMES system in two welding lines producing parts for the Faurecia company. DCIxMES has been connected to the existing logistical DCIxWMS solution. The project included automated creation of labels based on impulses from the line. Scanning labels after output check the operator records whether it is a correct or faulty piece. This ensures registering of defective pieces. Later the DCIxMES system has been extended to monitoring ten moulding lines. DCIxMES receives also signals from other production machines and it processes and evaluates the data.

The Futaba Czech company, thanks to AIMTEC, is also planning production that includes processes of painting, welding, and moulding, in a short-term horizon forecasting one week ahead, and in mid-term horizon for three weeks ahead. For the future, the intention is to expand the system for long-term planning, too. In terms of short-term planning, a plan is compiled for welding on Wednesday and for moulding on Thursday. On Thursday afternoon, the plans are ready and the purchase requirements are passed. Monday and Tuesday are used for other activities, e.g. the planner goes into the production and checks that the production plans are observed correctly. Forecasts from customers are also analysed in these days. There are regular daily meetings with production managers; these meetings are also attended by quality managers and production engineers, who provide planners with information about new projects they want to realise on the original machines, or they are solving special customer requirements. Planners transmit the acquired information into the Asprova system to generate a production plan.

#### Solution specifics

 Integration of Asprova and DCIxMES
 Part of the project was integration of Asprova with DCIxMES that collects data from moulding lines and transfers them into Asprova. This eliminated human interference in this critical production part completely.

Sales Order module

All orders and forecasts are registered in the Asprova system and it is possible to work with work order priorities at the same time.

 Visualizing input material and plan directly on machines in production

Enhancements of the functionality concern visualisation of input material for production coverage and potential delays or production stoppage.

# Benefits

- Detailed overview of material stock levels and production in progress.
- Ensuring 100 % traceability.
- Reducing stock levels by 50 %.
  Material stock level used to be 2 days; currently it is 6 hours for moulding.
- Reducing number of planners from 4 to 2.
- Stabilization of production and quality alongside.
- Weekly purchase plan for suppliers' purposes, which meant lower labour intensiveness of orders processing for them.
- Planning according to Heijunky. Stock is maintained at the preset level.

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