

TI Automotive AC Ltd.



TI Automotive

APPLICATION:

The verification of different options of decomposition of production workers and facilities, different ways of production management and work organisation, the simulation of shift changes and increasing of produced amount.

BRANCH:

Automotive industry

SECTOR:

Engineering

BENEFIT:

New layout of production facilities, staff reduction.



About the company

TI Automotive AC Ltd. housed in Jablonec nad Nisou is engaged in the production of air conditioning equipment for the automotive industry.

Project targets

The project target in the company TI Automotive AC s.r.o. was to create a proposal of optimization of production process with achieving the most suitable production capacity for individual groups of products, minimizing incurred manufacturing and logistics costs and a

draft of the most suitable management system of the production process.

Solution

The project was divided into several phases. In the early stages it was gathered and processed data on which was then in the next phase built a dynamic simulation model. Furthermore, using this model there were examined proposals on possible ways of optimizing the production process in individual parts of production and ensure a satisfaction of all customer requirements and also achieve lower operating costs.

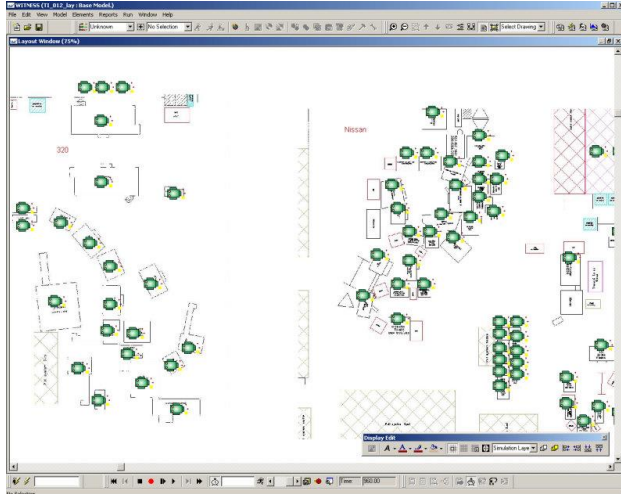
There were tested several variants of placement of production facilities to cells and lines and at the same time the verification of workers' needs and capacity possibilities of production facilities with the expected increase in the production of some products or introducing new products and production quantities required buffer stock.

Results

The simulation model in Witness helped to propose and verificate possibilities of optimization of production parametres. Selected workplaces could be rearranged using more appropriate way so that through them material could flowed directly and without unnecessary delay. For the support of fluency of this flow there was determinated the exact size of buffer stock.

Due to a more appropriate arrangement of production facilities in workplaces and better work organization it was possible to reduce workers amount on average 1 - 2 worker per shift which is overall saving of

19 workers in the whole production which is 5,5 millions CZK saving per year.



Picture no. 1 – Dynamic simulation model - final completion