



SIMULATION APPLIED FOR BOTTLING TECHNIQUES



INDUSTRY

Industry & Logistics

APPLICATION AREA

Manufacturing

COUNTRY

Germany

CHALLENGE

- Make effective adjustments to existing production lines or single machines installed in the bottling and packaging industry.
- Provide staff with visualization of future new system.

RESULTS

- The resulting effects of capital investment already exceed the implementation costs several times including the simulation experts for the first year.
- The 2D- and 3D visualization functionality of Enterprise Dynamics® convinced all stakeholders of the new system.

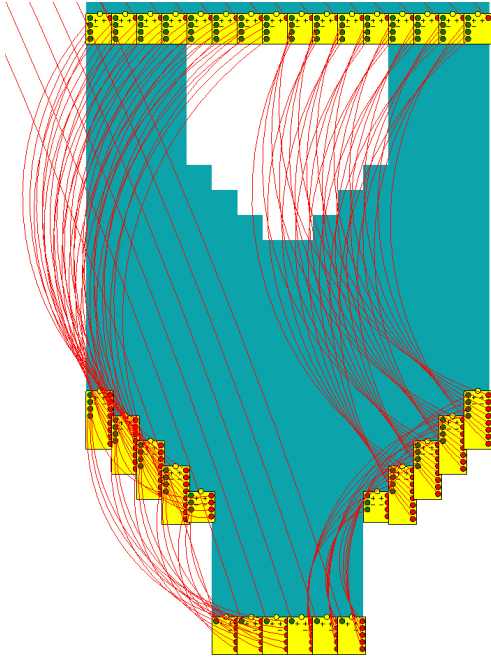
After 3 months of market research, tests and interviews with software and solution providers, the decision was made in favor of Enterprise Dynamics®.

KHS

KHS Maschinen- und Anlagenbau AG, located in Dortmund, Germany, started the selection of a simulation tool for plant layout and planning. KHS Maschinen- und Anlagenbau AG is a global supplier for machines in the beverage industry, ranging from stand-alone machines to complete production lines. After 3 months of market research, tests and interviews with software and solution providers, the decision was made in favor of Enterprise Dynamics®.

Important specifications for the new simulation software were:

- 2D- and 3D modeling capabilities of new objects;
- Powerful process visualization;
- Implementation of control logic.



SOLUTION

These requirements must allow simulation experts at KHS to make effective adjustments to existing production lines or single machines installed in the bottling and packaging industry. The visualization must provide the sales staff and customers with a realistic and easy to understand view of the future system.

Practical solutions played an important role. These can be combined in the “end user acceptability” of the simulation software tool. That means that sales people, project planning employees or the customers themselves should be able to run the simulation model and change parameters within the model even without (special) simulation knowledge. In October 2004 the Enterprise Dynamics® software package was officially acquired. After one year of experience with the software, the high demands and wishes at the beginning have been confirmed.

Software implementation and training of was completed quite quickly. Furthermore, a KHS specific modeling library and the standardized use of that library on several PCs have been realized clearly ahead of schedule.

RESULTS & BENEFITS

The economic benefit of a simulation tool is difficult to prove before implementation. This includes the personal experiences and project usability as well. It is only possible to refer to the successes of other companies and to convince the persons in charge (in-house) of the future success with such a simulation tool. In fact in several past projects at KHS, the production line planning was optimized. The resulting effects of capital investment already exceed the implementation costs several times including the simulation experts for the first year.

At “drinctec” in Munich – the world’s most important exhibition for the beverage industry – KHS introduced their area of logistic expertise for the first time. The main part of this was the utilization of Enterprise Dynamics®. The feed-back demonstrated that KHS made the right decision to purchase Enterprise Dynamics® software.