

## The simulation system PacSi

Packaging machines belong to the royal league of mechanical engineering, as they are usually highly specialised machines with high demands on speed, performance and process reliability. These challenges require individual solutions by the mechanical engineer, in that he must develop new and individually tailored solutions for the respective customer and at the same time make promises about the performance of his product.

Dynamic material flow simulation is a proven and recognised tool for determining performance indicators and optimising process reliability.

and optimisation of interlinked systems such as those commonly used in the packaging industry. It allows the necessary machine capacities and buffer sizes to be determined in advance without risk.

in advance.

PacSi is a tool that has been specially developed and optimised for this highly dynamic and performant area. Unlike many other products, PacSi uses a discrete-time approach to simulate such systems and can therefore provide answers much faster and run through a variety of necessary scenarios in minutes instead of hours.

## Special features of PacSi

### Line structure and efficiency

Consideration of:

- Machines
- Linking elements
- Number of operators
- Manual packing

### Detailed operator strategy

Consideration of:

- Operator position
- Travel times
- Priorities of the activity

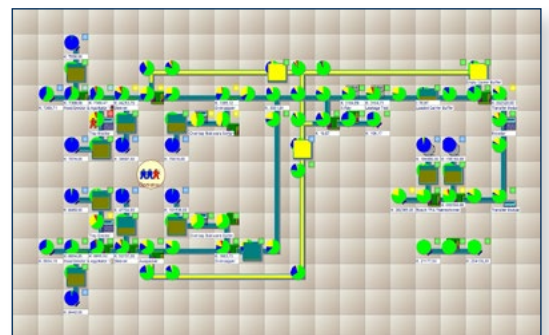
Differentiation in:

- ✓ operator activity and
- ✓ troubleshooting

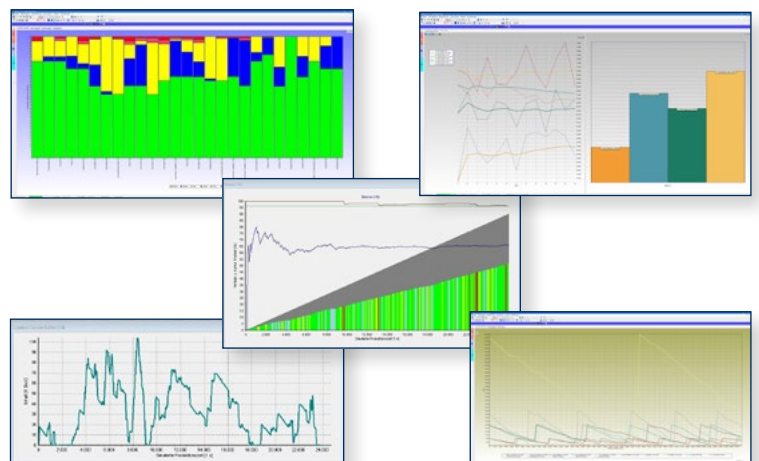
### Production optimisation

Consideration of:

- Layout variants
- Line performance
- Fault behaviour
- Set-up time matrix
- Order size
- Planning scenarios
- Delivery date



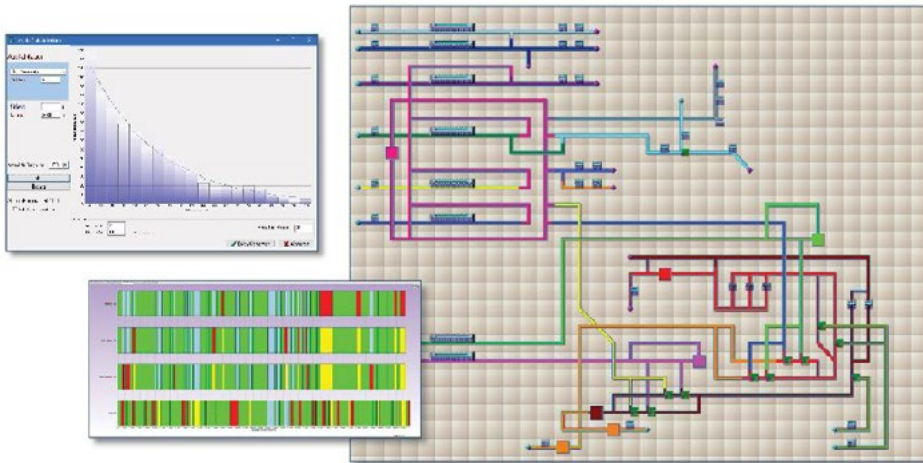
PacSi model of a line for filling and packaging baby food with carrier circulation system, incl. weak point analysis



PacSi offers a variety of different evaluation options

## Fields of application of PacSi

- Generating elements (e.g. conveyor technology, manufacturing and packaging machines, robots, buffer systems)
- Construction of arbitrarily linked lines from the elements
- Simulation of process behaviour
- Simulation of operator behaviour
- Evaluation according to criteria such as output, availability and efficiency of individual components and the entire line
- 2D representation of the model with visualisation of the element states (operation, jam, shortage, malfunction) and the product flow
- Different types of representation of the evaluation



PacSi model & evaluation of a factory for the production and packaging of pretzels



**You can also find  
further information at:  
[www.pacsi.de/en](http://www.pacsi.de/en)**

## Why SimPlan?

We are a cross-industry full-service provider for simulation, supporting companies of all industries with extensive expertise in the analysis and optimization of their business processes

- Objective and independent analysis
- Detailed knowledge in logistics and production from over 30 years of project work
  - Development and use of standards
  - Permanent advancement of simulation topics through research and development
- Excellent resources to respond quickly to your issues
- Close collaboration and project integration with a high level of on-site involvement
- Development of innovative solutions for the efficient handling of problems
- Neutral distributor for simulation software
  - Support in software selection and implementation as well as training

### Feel free to contact us

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