

**Know beforehand
what comes after.**

Gesundheitswesen / Healthcare

Hospital simulation

Simulation - The bridge to reality



The verification of processes and material flows with the help of simulations is becoming more and more popular - also in the healthcare sector. With the help of simulation, you can run through a wide variety of scenarios without disrupting ongoing operations or even endangering human lives.

The method is mainly used for optimization projects as well as new and reconstruction planning, but also for checking emergency scenarios.

The animation of processes creates a general understanding in a short time and helps to present findings convincingly.

Simulation thus helps to improve planning errors at an early stage - process costs can be reduced sustainably.

Simulation...

- ...based on building plans
- ...is close to reality
- ...is always individual
- ...is dynamic - changes and adjustments are easily possible at any time
- ...can be used for training purposes
- ...can be used as a business game

Typical applications of simulation in healthcare are:

- Investigation and optimization of treatment and process paths as well as patient flows
- Evaluation and design of room concepts
- Preliminary review of organizational changes
- Identify or review staffing and resource requirements in real-world operations
- Investigation and optimization of cost-intensive areas, e.g. operation theaters, intensive care units, use of large medical equipment
- Consideration of administrative processes
- Creation and review of emergency scenarios
- Analysis and design of logistics concepts (manual and automatic systems, conveyor technology, driverless transport systems, warehouses)



Central Hospital Campus Lörrach

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Simulation tools frequently used in the healthcare sector



AnyLogic is a dynamic simulation tool that supports all common approaches to simulation methodology. This includes the methods of system dynamics, process-oriented (discrete-event) and agent-based modeling, which can be combined in a model as desired.

AutoMod is characterized by its wide range of applications. Via modules, the software can be tailored to the respective task area.

Since AutoMod is compiler-based, very large simulation models can be created over entire clinics.



Plant Simulation is a modern simulation software, which is characterized by a consistent object orientation. It is a very comprehensive package, which can be adapted to the respective application area by self-created libraries. The excellent possibilities for internal data management should also be emphasized.

Simul8 is a cost-effective, modern and intuitive simulation software. Since the program is not quite as powerful, the training effort and the necessary know-how is reduced.



The SimPlan Group

SimPlan AG was founded in 1992 as a service provider for the simulation of operational processes. Today, with more than 115 employees, it is one of the leading German providers of simulation services. We see ourselves as a cross-industry full-service provider for simulation, supporting companies in all industries with extensive expertise, many years of experience and modern methods in the analysis and optimization of their business processes.

Our services range from process analysis and consulting to material flow and logistics simulation. In addition, we are a neutral distributor for simulation software and support our customers in the selection as well as in training and implementation in the company.

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