

Healthcare: Hospital Simulation

Optimise systems and processes

The verification of processes and material flows with the help of simulation 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 in optimization projects as well as new and reconstruction planning, but also for testing 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 and uncover 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 possible at any time
- can be used for training purposes
- can be used as a business game

Typical areas of application of simulation in healthcare are:

- Examination of building concepts with regard to the flow of people (patients, visitors, employees) and vehicles (cars, bicycles, ambulances).
- Examination and optimization of treatment and process paths as well as patient flows
- Evaluation and design of room concepts
- Preliminary examination of organizational changes
- Determination or review of personnel and resource requirements in real operations
- Investigation and optimization of cost-intensive areas, such as operating theaters, intensive care units, use of large medical equipment
- Examination 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

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 in any way.



AutoMod is characterized by its wide range of applications. The software can be tailored to the respective task area via modules. Since AutoMod is compiler-based, very large simulation models can be created for 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 area of application by means of 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 are reduced.



SimPlan AG was founded in 1992 as a service provider for the simulation of operational processes and today, with more than 120 employees, it is one of the leading German providers of simulation services.

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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