# Software and Labs to improve the efficiency of processes in healthcare

## Professional Simulation Requirements for Nursing Schools and Medical Universities

The main purpose of medical simulation is to train medical professionals to reduce errors during surgery, prescription, and general practice. The goal is to increase patient safety and quality of healthcare.

Practical exercise is good and indispensable, but to enhance the learning experience, all activities must be recorded and systematically analyzed. Only then a structured review is possible and creating a formative assessment video is just a mouse click away. Mangold International is your single source supplier for all video lab equipment and analysis software for your simulation center. Our solutions can help you to improve education standards and meet quality requirements. Extended research possibilities for time to intervention studies, human factors and latent risk analysis as well as comparison of live patient encounters vs. simulations using manikins.

Benefit from our experience and get the most out of your trainings in healthcare.

## We provide all you need to setup a professional Simulation and Training System

As an expert in behavior observation with more than 25 years, Mangold International delivers everything you need for professional observation and analysis of medical simulations and team research:



Audio, video and computer hardware for professional in-sync recording in simulations and real world situations



Professional software solutions for team research and workflow analysis



Broad expert knowledge in lab setup, professional observation and analysis

Medical educators, researchers and simulation professionals use Mangold system solutions to capture, observe and analyze the behaviors impacting patient care and safety.

Mangold solutions can integrate A/V, vitals monitor information, physiological data, eye-tracking, and motiontracking data into a single comprehensive analysis platform.



## Your Mangold Simulation Lab is designed to ...



#### Capture

Mangold recording technology comes in all shapes and sizes. We offer various camera systems and all sorts of audio equipment for capturing the team's communication professionally.

We also offer solutions to integrate all kinds of sensor data, for synchronized visualization during post analysis and debriefing. We offer our lab systems as stationary and mobile solutions, which gives you almost unlimited possibilities in a simulation center or in-situ.



## Analyze

The Mangold INTERACT software allows the extraction of complex information from live observations. This information can be combined with in-depth offline analysis of video recordings in INTERACT.

- Investigate reaction times between decisions and execution of the required interventions
- Root cause analysis to identify potential risk factors
- Get various statistics on team activities and behaviors
- Understand the full context of critical thinking and its relationship to resulting decisions
- Use the results to improve team performance and patient safety



## Collect

We offer software tools and methods for collecting qualitative and quantitative data for instructional and research purposes.

- Rate competency areas like patient safety, clinical judgement and expected skills
- Time stamp and annotate important situations in a structured way for quick retrieval and review
- Configure individual rating schemas and time based checklists. Use them to grade teams and individuals on their task performance



## Debrief

Sharing knowledge is the key to improvement and mutual understanding. Our tools support you in gaining and teaching the knowledge your team needs to improve performance and quality of outcomes.

- INTERACT allows for quick and meaningful video assisted debriefing
- Visualize the collected data in graphs and charts to provide additional insight on performance of teams and individuals
- Reveal behavioral patterns which are invisible to the observer



Train

Create content for training purposes with the help of INTERACT.

# We help you to create the observation and analysis solution you need!



Discover more ... www.mangold-international.com

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