



The only meaningful training for healthcare professionals in operating life-saving equipment in VR

VR ICU® - a new standard of training for Intensive Care Unit

To maximize the potential of life-saving devices in the intensive care unit, a high level of confidence based on sufficient experience is necessary. VR ICU® surpasses the current limits in the training of doctors and nurses operating life-saving devices and contributes to maximizing the potential of sophisticated devices, fixing the correct procedures in crisis situations, ultimately leading to greater efficiency in medical care in the ICU and reducing unnecessary complications caused by lack of experience or qualification.

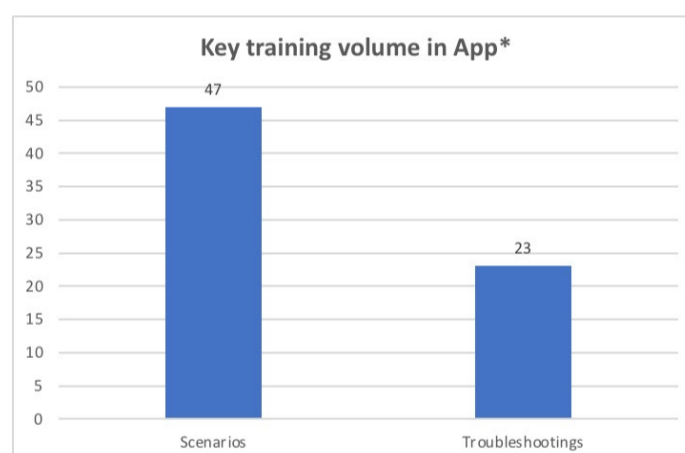
KEY FEATURES OF VR ICU®

- **Interactive VR environment** fixes skills trained on the digital twin of a specific device.
- **Multiplayer solution** allows interaction of multiple users simultaneously, training on devices can be led by a certified instructor for participants from different locations. Practicing crisis scenarios allows supervision by experts, consultations through remote connections.
- **Managerial solution** provides an overview of completed trainings, their progress, and identifies weaknesses in training, giving an overview of team readiness and personnel reserves.
- **LMS** enables personalized training in areas identified in completed training.
- **Training scenarios** content are developed in collaboration with device manufacturers and healthcare personnel to meet their most urgent needs.
- **The utility of the application and effectiveness** are supervised by an International advisory board, and the practical need for the application is confirmed by the demand from global manufacturers and sales to hospitals.
- **Connection of an artificial intelligence** that enables interaction between patient avatar and device (currently in the final testing).

VR ICU® is the only automated virtual reality training platform that simulates intensive care unit procedures without the need to involve the actual patient and equipment.

It provides training for:

- Instrument setup procedures
- Crisis situations
- Maintaining skills for low-frequency procedures
- Certified trainings



*based on the collaborations in progress the number of trainings will be increasing

VR ICU® AS A PROBLEM SOLVER

Problems in European hospitals

- More than 50 % of ICU procedures cannot be rehearsed without a real patient and machine
- ICU nurse turnover in Europe is 20 % per year
- Insufficient overview of currently trained staff
- No possibility to create a pool of competent staff and maintain their skills for crisis situations (e.g. increased need for close specialisation of respirator operators in the Covid era, etc.)

Problems of Medical equipment manufacturers

- The problem to get trainees at the same time in the same place
- Realistically, about 30 % of the participants who enrolled in the training complete the training (the rest are recalled to duty and the knowledge is passed on by the currently trained personnel)
- Training imparts knowledge not skill

Additional benefits of VR ICU® participation for manufacturers:

- VR training saves time for application technicians, who can focus only on key questions and unexpected situations.
- Sale of training as additional income for the producer.
- Training data as information on the actual use of a specific device, facilitates further sales and allows targeted user support



PRODUCT VALUE FOR HOSPITAL

- Hospitals leverage VR ICU® to continuously maintain the skills of ICU staff and expand the competencies of healthcare personnel reserves. This includes training for critical situations, enhancing the efficiency of newly formed teams, minimizing human error, and reducing the risk to patient safety.
- The platform includes a training record system that provides an overview of the current readiness levels of staff and enables informed preparation for creating personnel reserves.
- The application serves as a virtual platform that integrates devices from competing manufacturers, with their consent and recognition of the importance of being part of a unified solution. This meets the healthcare professionals' demand for a comprehensive, all-in-one solution.

COLLABORATION WITH MEDICAL DEVICE MANUFACTURERS

On the global market, there are 16 leading manufacturers of ICU equipment, whose devices are utilized by most key healthcare facilities.

Our current portfolio:

LINET

B | BRAUN
SHARING EXPERTISE

**HAMILTON
MEDICAL**

**FRESENIUS
MEDICAL CARE**

Ongoing cooperation in progress:

Jafron, Baxter, Draeger, Siemens, Nihon Kohden

PRODUCT VALUE FOR MANUFACTURERS

- Enhanced user training: Manufacturers appreciate the more efficient user training process.
- Certified standardization of procedures: Ensuring consistency and compliance with certified, standardized procedures.
- Cost reduction: Significant reduction in training costs for healthcare personnel and decreased material consumption.
- Expanded service and support options: Increased opportunities for service and customer support.
- Direct experience for potential clients: Providing potential clients with hands-on experience with their devices.
- Reduced CO2 emissions: Lowered carbon footprint due to the multiplayer platform and remote connectivity options.



PARTNERS



THIRD FACULTY
OF MEDICINE
Charles University



FIRST FACULTY
OF MEDICINE
Charles University



UNIVERSITÄTS
KLINIKUM
HEIDELBERG

MUNI | SIMU
MED



Virtual Lab, a distinguished Czech company, excels in crafting practical VR/AR solutions and ensuring their seamless implementation. Renowned as a frontrunner in training and development, Virtual Lab has made significant strides in the MedTech and educational sectors. The company is acclaimed for its bespoke solutions tailored precisely to the unique requirements of each client. Noteworthy products include the state-of-the-art VR ICU®, designed to train healthcare professionals on ICU equipment, and VR CPR, enhancing the life-saving skills of laypersons and first responders in CPR and related therapies.

Standing at the forefront of the industry, Virtual Lab is unmatched in developing sophisticated solutions for specialized training environments, customized to meet the specific needs of individual companies.



Leoš Kubíček
CEO, co-founder
+420 724 250 603
leos@virtual-lab.cz
[LinkedIn](#)



Ondřej Chromý
CSO, co-founder
+420 608 203 311
ondrej.chromy@virtual-lab.cz
[LinkedIn](#)



Andrej Braguca
CTO, co-founder
+420 721 618 189
andrej@virtual-lab.cz
[LinkedIn](#)



Mirka Čejková
CCO, partner
+420 602 207 206
mirka@virtual-lab.cz
[LinkedIn](#)



Others
+25 Senior Developers,
Testers and App Architects

AWARDS



Top 13 CEE
2023



3rd place CZ
2023



Winner
2023



Finalist CEE
2023



Winner
2022