



ALVO[®] Integra

Operating Room Integration System

ALVO Medical designs, manufactures and installs innovative solutions for operating theatres, hybrid operating theatres, intensive care units (ICU), neonatal intensive care units (NICU). We equip specialist treatment rooms and hospital wards with equipment and hygienic modular infrastructure.

ALVO® Integra

ALVO® Integra is a future-proof operating room integration system offering integration of medical and non-medical devices and advanced medical video management functions (videorouting, telemedicine).

ALVO® Integra solutions are designed to improve workflow, ergonomics and safety in the operating room. ALVO Integra is a medical device marked with the CE marking.

Based on more than 30 years of project experience in more than 100 countries around the world, ALVO Medical offers its customers operating theatre integration system depending on the needs and specifics of the work.



ALVO Integra Center - showroom at ALVO Medical headquarters in Poland.

Learn more about our training offer:
www.alvo.pl/training



Hygienic and practical access to hospital systems

- ALVO Integra allows access to hospital systems, e.g. PACS/HIS in the operating room.
*licence and software for hospital systems are not provided with devices.
- Station is prepared for panel installation, equipped with a computer monitor and a medical keyboard below display.
- Station is equipped with two USB board sockets for the connection of peripheral devices and USB memory sticks.
- As an option, there is a station with an HDMI socket for connecting an external image source for projection on the viewer station.
- Available in 4 monitor sizes: 27", 32", 43", and 55".



The offer includes 4 sizes of the station perfectly suited to different user needs.



ALVO® Integra

Ergonomic management of infrastructure and equipment.

A system dedicated to the management of the medical and non-medical infrastructure of the operating room. A simple and quick-to-install solution that centralises the control panels of the integrated devices on a single touchscreen and allows the monitoring of ventilation, medical gases, and electrical systems.

System functionalities:

- Control of operating lights
- Control of automatic doors and blinds
- Visualisation and monitoring of medical gases status
- Management of ventilation system functions for reading and setting temperature and humidity parameters
- General lighting control
- Built-in music player
- Built-in electronic clock
- Programmable stopwatches and alarms



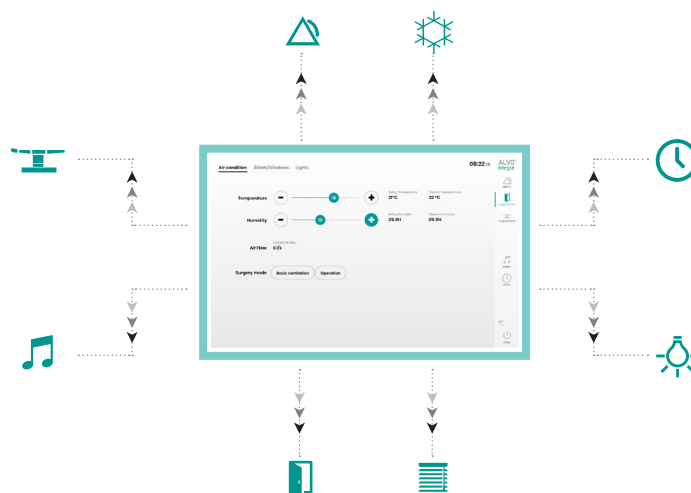
Integrated device interfaces

The icons on the ALVO® Integra touchscreen is identical the original controller buttons and device interfaces to make central operating room management simple and more intuitive.

Confirmed compatibility with selected devices from other manufacturers expands the available portfolio.

The ALVO® Integra interface has been designed together with clinicians: nurses, surgeons and anesthesiologists. The shape and dimension of icons has been designed based on data from interactive heatmaps.

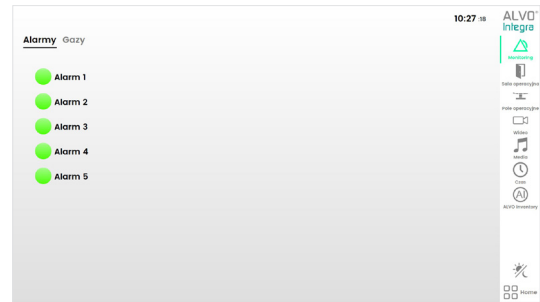
Scheme of the system



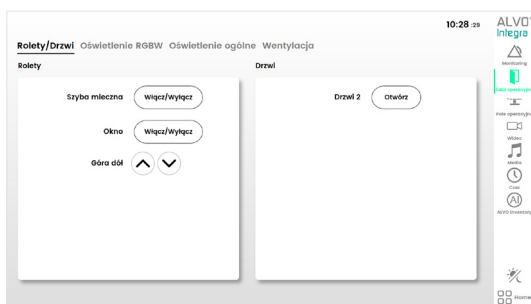


The system that informs the user about the status of medical gases is a technological solution that reads medical gas levels in the operating theatre. When critical levels are detected, the system automatically generates audio and visual alerts.

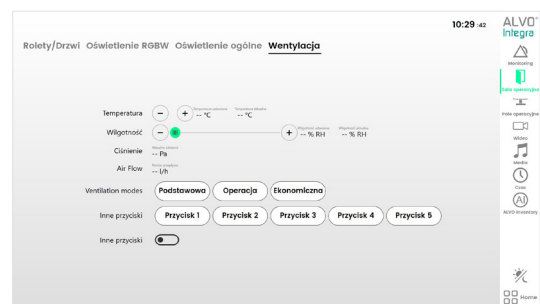
With this solution, medical facilities increase patient safety while improving the efficiency of medical resource management.



The operating room alarm notification system is a technological solution that informs about the status of user-selected alarms during procedures.



The touchscreen doors and blinds control system combines functionality and aesthetics, offering an easy-to-use interface and advanced management capabilities.



The user can easily adjust the desired temperature using the slider or buttons „+” and „-”. Once a new value is set, the system automatically adjusts the temperature in the operating room

ALVO® Integra

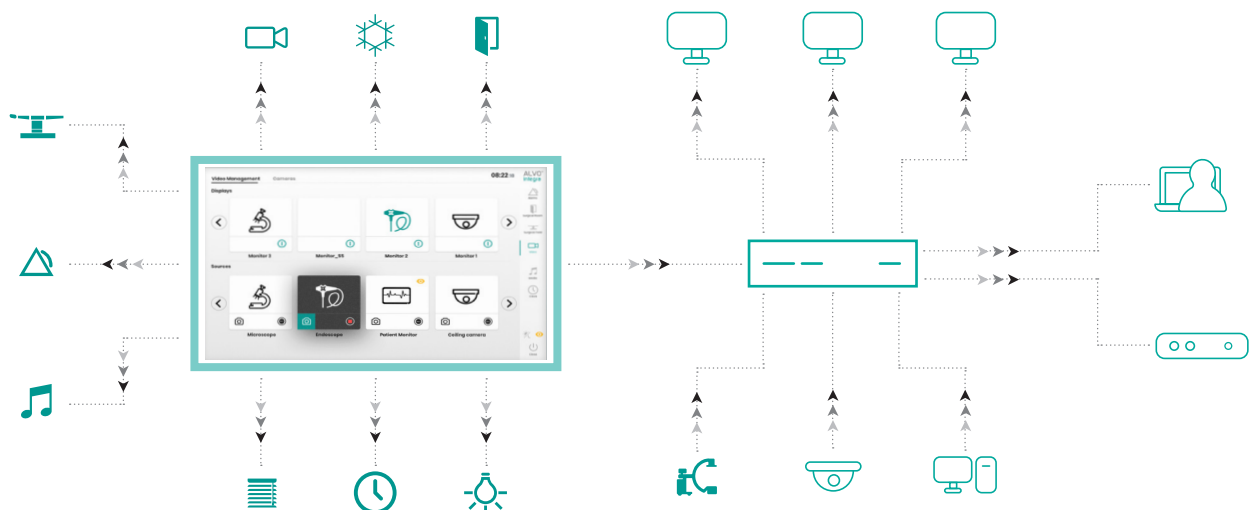
Intuitive, ergonomic and safe management of medical images and equipment in the operating theatre

A system dedicated to the management of medical and non-medical operating theatre infrastructure and video management. The simple, compact architecture allows the system to be implemented in existing facilities. The system enables advanced video management and display on monitors in the operating room, as well as streaming outside the operating room.

System functionalities:

- Video management in the operating room
- Possibility of connecting different video sources regardless of manufacturer (cameras, endoscopes, ultrasound scanners, PCs)
- Display of video on medical monitors
- Access to hospital data stored in PACS and HIS systems
- Recording and archiving of video sources connected to the system
- Streaming audio video inside the hospital network and to the Internet
- Control of cameras connected to the system by the manufacturer from the compatibility list

Scheme of the system

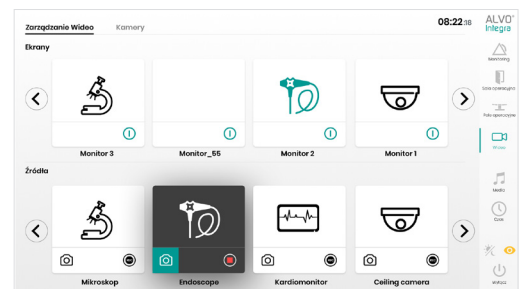


Video management

ALVO® Integra Vision enables the management of video in the operating room in a simple and intuitive way from the touchscreen. The system's open architecture allows expansion with new video sources and monitors without interfering with the cabling infrastructure.

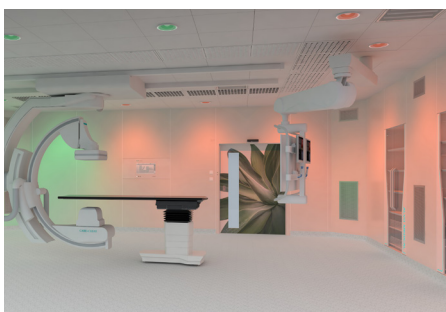
This long-term approach safeguards the hospital's investment cycle. Each hospital department can have a nurse station with direct access to the PACS and HIS systems in the form of ALVO Viewer. Video sources can be permanently assigned to a specific operating room, e.g. a camera in the operating room, a PTZ camera installed on the ceiling and computers with access to PACS and HIS systems. Another group of video sources supported by ALVO® Integra are mobile devices such as endoscopic cameras, ultrasound or C-arms.

Mobile devices are often shared between operating rooms, so the ability to dynamically connect an additional video source during an ongoing operation is very important.



RGBW lighting

RGBW technology, also known as ergonomic lighting, allows the colour of the light in the operating theatre to be adapted to the phase of the operation. Individual light scene settings for surgical scenarios can be recalled from the ALVO® Integra touchscreen. The achieved lighting color is based on green, red, blue and white colours depending on the type of procedure or stage of surgery. For example, white light will be used during the patient preparation and anaesthesia phase. Minimally invasive procedures often use green or blue light, which allow better contrast with the image on surgical monitors and reduce operator's eye fatigue. RGBW lighting helps hospitals save energy, which is a significant economic benefit.



Access to Patient Data

Surgical team can conveniently archive images and video sequences on PACS servers, ALVO® Integra enables direct application-level data exchange with PACS and HIS systems. The system allows procedure data to be downloaded from the HIS system to assign images and archived data throughout the procedure to a patient. After the procedure, surgeons can upload and archive full patient data in the PACS system. This makes patient processing data in the hospital system much faster and safer.

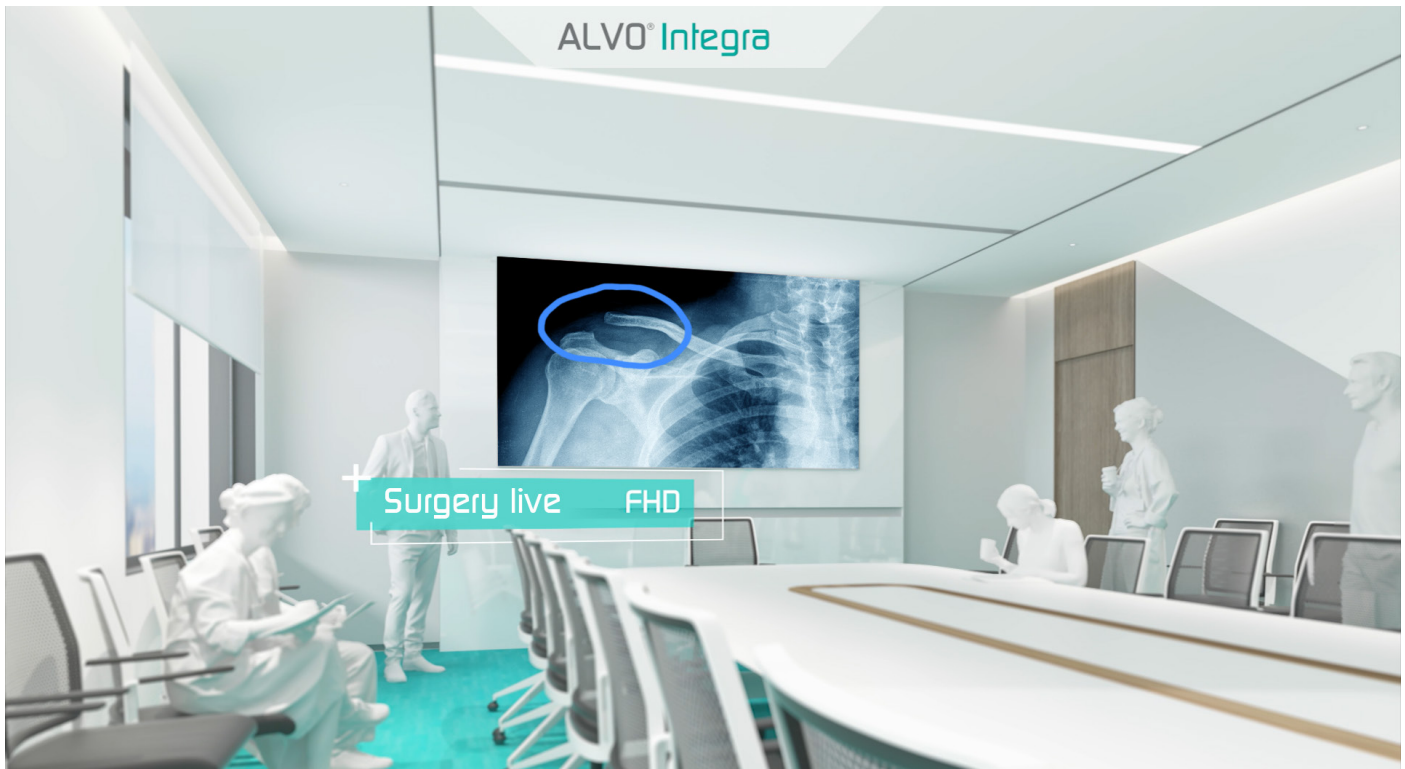


ALVO® Integra

Videoconference

Teleconferencing and remote collaboration between surgeons during surgery have become natural. The operating theatre hygiene regime recommends limiting the number of people in the operating room.

The videoconferencing option serves university units as a way of introducing students and surgeons to practical knowledge remotely. The ability to transmit high-quality video from operating room with simultaneous voice communication facilitates consultations and conferences. Doctors can now record or transmit live video conferences to the conference room. The telestration broadcast option- in the operating room and the audience in the auditorium can mark a specific area additionally allows two-way interaction on the transmitted content. The surgeon on the image in a user-defined colour. The marking will be displayed on the screen of all devices connected to the video conference in question.



ALVO Integra System Modules

Central Unit with ALVO Integra Software

Control Wiring Module

Audio Communication Management Module

RGBW Lighting Control Module

Infrastructure Control Module

Operating Light Control Module

Operating Table Control Module

HIS System Integration Module

PACS System Integration Module

Nurse workstation

Viewer workstation

Video Conferencing Module

OR Status Display Module

Video Wiring Module

Image Processing System Module

Video Sockets Module

Video Recorder Module

Ceiling Camera Module

Panel-Mounted Monitor Module

RACK Cabinet Module

Surgical Field Monitor Module

Some modules may require a different one to be included in the system.

ALVO® Integra

Completed projects



Poland
HCP Medical Centre, Poznań
7 operating rooms



Poland
Dr. A. Jurasz University Hospital, Bydgoszcz
2 operating rooms



Panama
Ciudad de la Salud
43 operating rooms

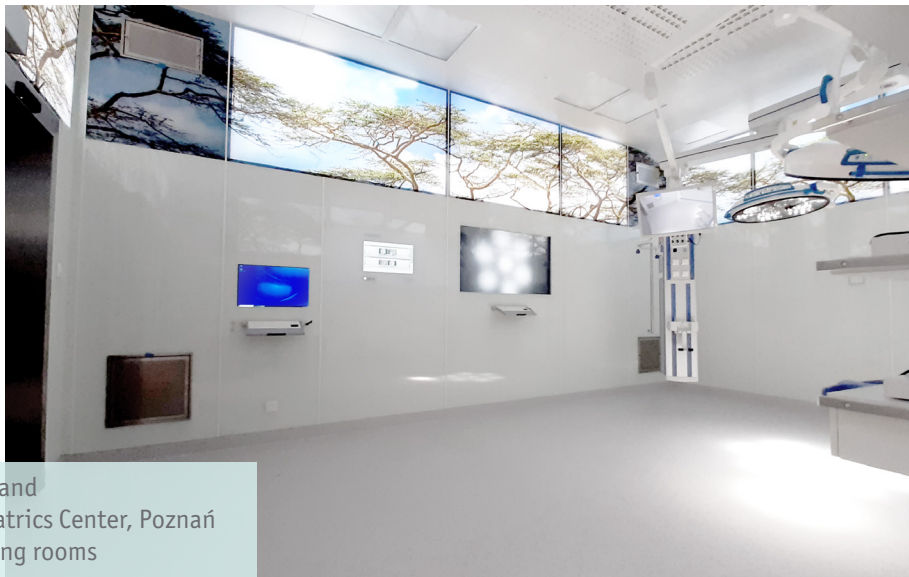




Sweden
SGH Stockholm
24 operating rooms



Poland
Greater Poland Pediatrics Center, Poznań
5 operating rooms



Philippines
Institute of Kidney Transplantation, Mindanao
4 operating rooms



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