Simstation GO:

The SIMStation Go is slim, fast, and extremely powerful. The entire system can be transported and set up by one single person in just a few minutes. Once set up, the software applications guide you intuitively through the handling of the system. After just a short training session, you can immediately start recording and debriefing your simulation sessions.

Wi-Fi 6 Technology

The SIMStation Go will allow you to set up ultra-mobile simulation areas by using the latest Wi-Fi 6 technologies. Integrated Wi-Fi access points enable the use of Wi-Fi based devices both in the simulation room (e.g., Wi-Fi cameras or wireless media screens) and in the control and debriefing area (wireless displays and input devices). Near-cable-free simulation setup that gives you entirely new application freedom. The implementation of innovative Wi-Fi standards wireless audio and video transmission with low latency, superior transmission quality that is as stable and fast as wired solutions.

The system adapts to any training environment and can be expanded with optional add-ons depending on learning and training objectives for preclinical and clinical in-situ scenarios. The system can be quickly and easily moved to the desired room at any time and easily integrated into the existing premises there. In just a few minutes, you can turn any of your rooms into a training space. The near-cable-free design supports an immersive training experience for participants and allows instructors to control and annotate the simulation remotely in real time.

Another area of application for which the SIMStation Go is tailor-made is ambulance simulation. Large parts of the AV system can easily be pre-integrated into active emergency vehicles. The network structure with all connections disappears completely behind the interior paneling of the rescue cabin, while the AV components are simply fixed in the interior by means of magnetic brackets in just a few simple steps. This concept has two major advantages: Since the entire cabling runs behind the interior paneling of the cabin, the active use of the rescue vehicles is not disturbed in any way after removal of the mobile AV components. Furthermore, after dismantling, these AV components can also be installed in other rescue vehicles with an existing network structure without any problems. With only a few conversions, all your active emergency vehicles can thus become a fleet of simulation rescue vehicles.

Ultra-Mobile System – The entire system can be transported, set up and operated by one single person.

Minimal Cabling – The SIMStation Go uses state-of-the-art Wi-Fi 6 technologies to reduce cabling to an absolute minimum. All input and control devices as well as transmission displays can be used via Wi-Fi. Both the control and the transmission and debriefing areas are virtually wireless.

Flexible Application – Numerous application possibilities. In-situ operations in isolated and spatially limited areas are particularly easy to implement. For instance, integration into active emergency vehicles.

Full Compatibility – Can be used as a completely stand-alone system. As an ultra-mobile extension, SIMStation Go can also be seamlessly integrated into your SIMStation Enterprise

system. In addition, numerous integrated interfaces enable easy linking with other devices, systems, and technologies.

centralized.limitless.performant.

SIMStation Enterprise

SIMStation Enterprise

SIMStation Enterprise, designed for larger simulation, learning, and testing centers, is SIMStation's most comprehensive product line with the largest feature set in the SIMStation product range. SIMStation Enterprise is **a highly customizable system solution with virtually unlimited application and expansion options**. The SIMStation Enterprise Software offers not only the functions of control, recording, and debriefing of simulation trainings, but also extensive software for planning, handling, controlling, recording and follow-up of student exercises/examinations, which can take place simultaneously in multiple rooms (e.g., OSCEs).
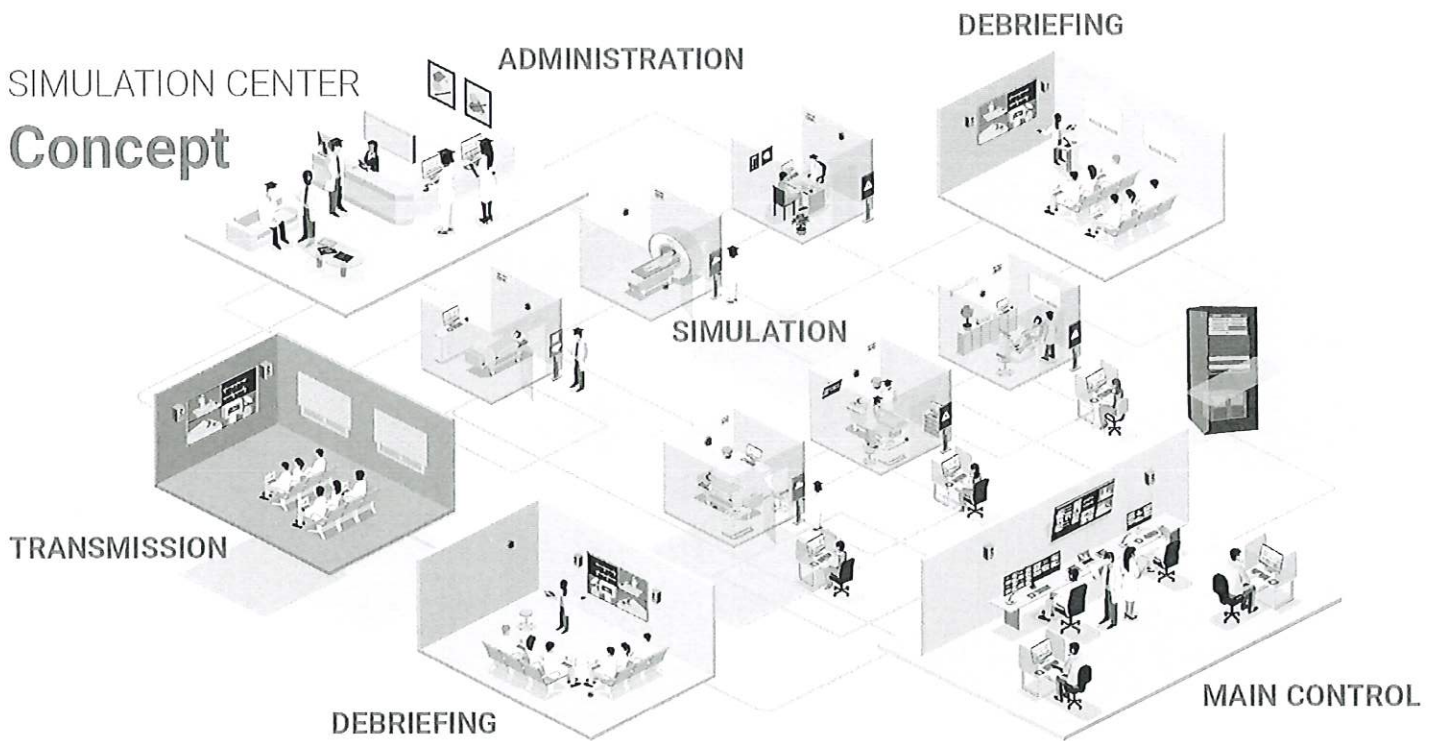
In our opinion, **instantaneous transmission and perfect speech intelligibility** are the most important requirements for a modern AV simulation system. SIMStation Enterprise meets these requirements in a unique way by implementing the **most innovative digital sound optimization:** The speech of the participants is transmitted loss and latency free through **digital Dante® technology** and optimized by a central **Audio DSP (Digital Signal Processor)** using **Acoustic Echo Cancellation, Background Noise Compensation and Automated Gain Control,** so that the participants are clearly understood – even in rooms with strong background noise (e.g., ventilation, medical equipment).
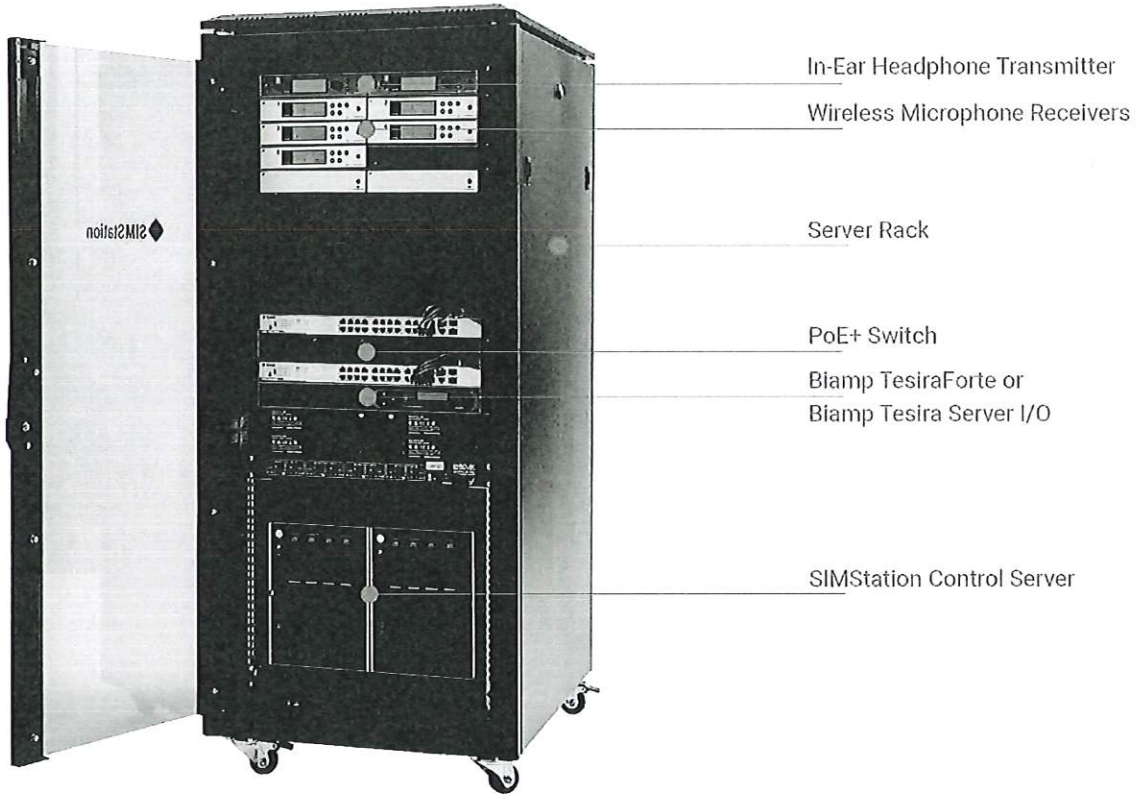
SIMStation Enterprise is **a centralized system with one or more servers** located in a central server room, accessed by the **various computers and tablets** in the simulation, control, transmission, and debriefing rooms. This concept has the great advantage that no equipment racks need to be installed in the individual rooms of the center. In addition, it allows for **a completely unconstrained configuration of the simulation center:** Each computer registered in the network can assume the role of a control unit, a debriefing player, a live player, a media screen or an administration station based on the configured authorizations.
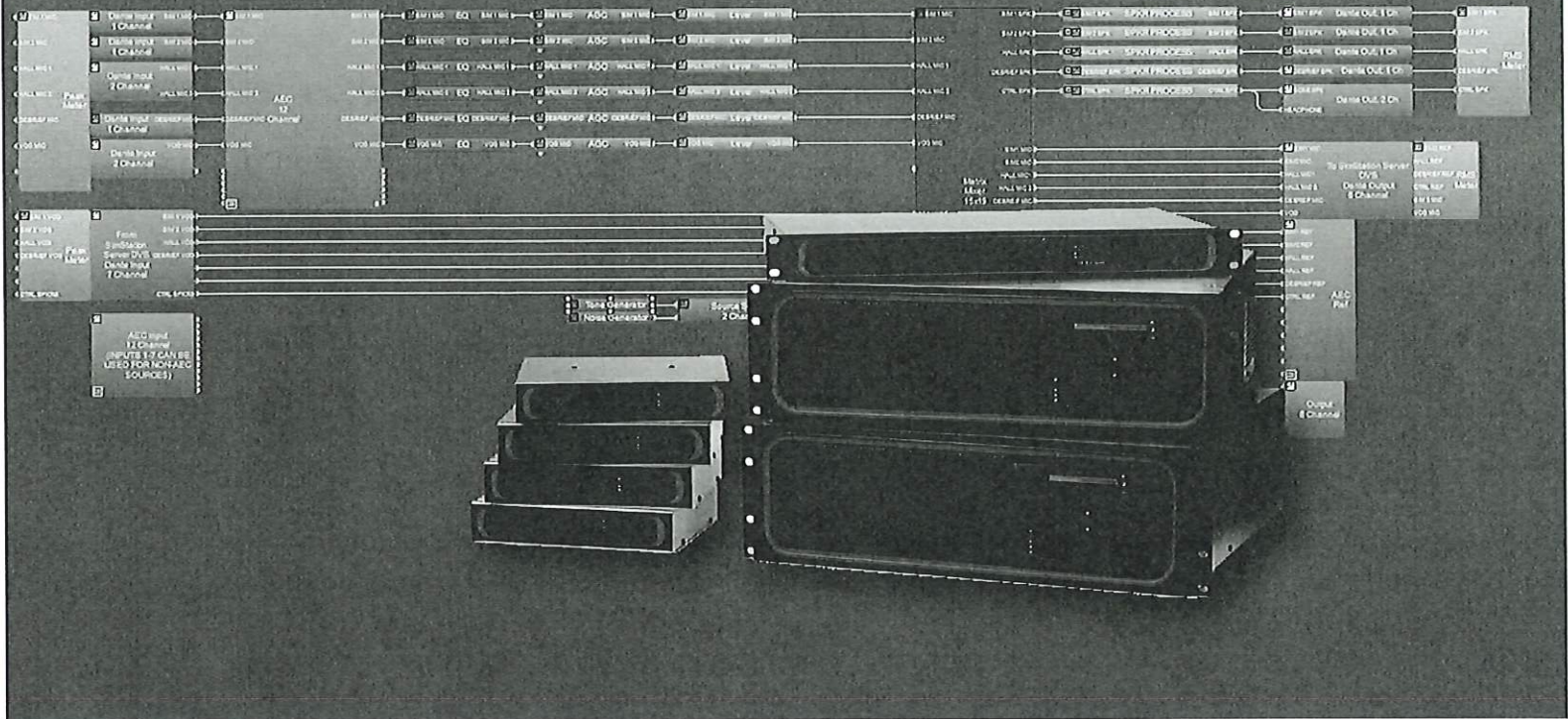
The SIMStation Enterprise Software was developed using **state-of-the-art frameworks, which are compatible with the technologies relevant in the next decade,** such as Cloud Based Computing and Internet of Things. The software architecture is designed as **an open system with standardized data protocols and interfaces,** enabling connection and interoperability with other software/IT systems already in use. SIMStation Enterprise is also **a highly secure solution in which all signals are transmitted encrypted** and different users can only perform those functions for which they have been authorized. The perfect choice for **simulation facilities that need a secure, flexible and future-proof system solution**.

SIMULATION CENTER
Concept

ADMINISTRATION

DEBRIEFING

SIMULATION

TRANSMISSION

DEBRIEFING

MAIN CONTROL

In-Ear Headphone Transmitter

Wireless Microphone Receivers

Server Rack

PoE+ Switch

Biamp TesiraForte or
Biamp Tesira Server I/O

SIMStation Control Server

SIMStation Audio Equipment

By using professional microphones by SENNHEISER, Dante® lossless audio signal transport with low latency, professional Audio DSP by BIAMP in combination with the unique SIMStation Server Software, we provide the **highest audio quality standard of all simulation AV systems** in the industry.

Unique Advantages of the SIMStation Enterprise System:

- Only SIMStation provides **near zero audio delay in the control room**. A long signal delay is unacceptable for live trainings because it affects the immediacy of the communication between the trainers and the learners.

- Only SIMStation offers **Digital Noise Cancelling and Acoustic Echo Cancelling**. Simulation rooms can be very noisy environments (e.g., ventilation, medical devices) and if the audio signal is not digitally processed through noise-cancelling devices, the intelligibility of speech in the room can dramatically be affected. To prevent this, SIMStation uses high-end digital noise-cancelling logic, which separates background noise from speech, resulting in a **much higher level of clarity and comprehensibility**.

- Only SIMStation **records and mixes different audio channels discretely from video signals**. While other systems merely rout the microphones' audio signals into the video system, SIMStation **processes, optimizes, streams, and records each microphone signal individually**. The SIMStation Control Software enables trainers to mute individual audio channels and/or to adjust the volume of each microphone; simply by using touch controls of the SIMStation Control Software.

Professional Audio DSPs

- Audio optimization functions are implemented by professional Audio Digital Signal Processing Units by BIAMP Systems (Tesira DSP series).

- Acoustic Echo Cancelling and Digital Noise Cancelling significantly improve the acoustic transmission quality and ensure the best possible intelligibility of speech during simulations.

SIMStation Software 6.0

- SIMStation Software 6.0 is characterized by **usability, performance, and stability**.

- **All SIMStation systems are pre-configured**, no additional software needs to be installed.

- A **web-based software version for all SIMStation product lines** – The SIMStation product lines are thus compatible with each other.

- Each SIMStation product line has its own **customized software package** that can be optionally extended. The software-related range of functions of the respective SIMStation product lines can be seen in the following table "SIMStation Product Lines: A Comparison".

- **Outstanding picture and sound quality** with minimal delay in live transmission

- **Lip sync sound to picture**

- The **Windows-based SIMStation Remote Tablet**: a multifunctional tool for the control, annotation and debriefing of the training – connected to the system components via Wi-Fi

- A **completely new management concept for simulation centers** (event planner, user management, etc.; for SIMStation Pro and SIMStation Enterprise as optional upgrade)

- **Supported 2-screen mode during recording/transmission/debriefing** (for SIMStation Pro and SIMStation Enterprise)

Recording

- View and record **up to 9 video streams simultaneously** (up to 4 for SIMStation Essential, 6 for SIMStation Pro, and 9 for SIMStation Enterprise); **up to 4 different, freely definable stream layouts** (of cameras, Patient-Monitor Capture-Devices) per room, which can be changed during recording; **control of the cameras**: moving, zooming, focusing (depending on the camera model) – the SIMStation Control Software communicates directly with the firmware of the respective camera, **no additional hardware (e.g., joystick) is required**.

- **Annotations of medical events using icon-based buttons that can be edited in the scenario library**

- **Evaluation of the simulation training by electronic checklists** in the SIMStation Control Software

- **Join Training**: This function allows other trainers to log into a running simulation. In this way, several trainers can make annotations and fill out checklist at the same time; Tasks can be distributed sensibly.

- **Live control of all audio devices**

- **Recording and streaming of patient monitors** via Patient-Monitor Capture-Device

- **„Audio to Room"**: live control and playback of announcements (via conference microphone) and ambient sounds (MP3 files uploaded by the user) into the simulation rooms – to all simulation participants via loudspeaker systems

- **„Audio to Private"**: live control and playback of "private or secret" instructions/information (via conference microphone) into the simulation rooms – to individual simulation participants via in-ear device; usually trainers or standardized patients (requires optional upgrade for SIMStation Essential)
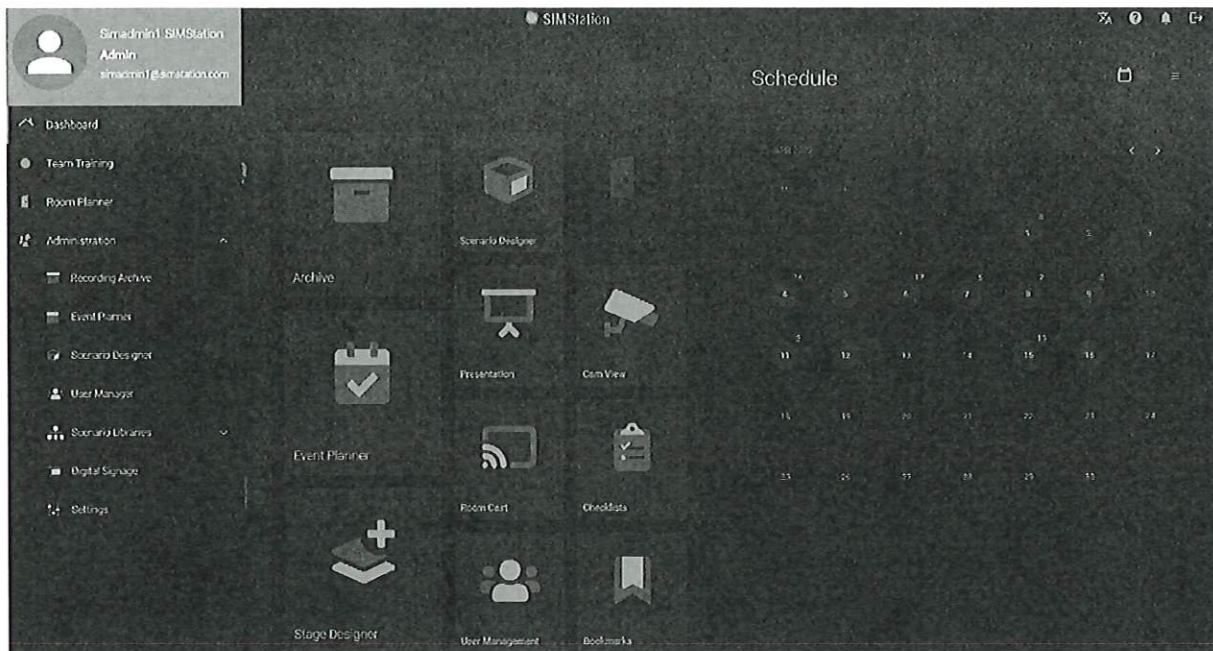
- **Media Screen**: displaying multimedia content in the simulation room – from X-ray/ultrasound images and blood findings on monitors to scenario-creating environment visuals (traffic, building images) on large screens (optionally available as an upgrade for all SIMStation product lines)

- **Transmission & View Management**: control of the live stream for viewers in the transmission or debriefing room; screen selection, playback of the clinical vignette and text-based information

- **A seamless room change within the scenario (e.g., from the ambulance to the shock room) during the recording is possible without having to end it.**

Live Transmission & Debriefing

- The SIMStation Debriefing Unit is a powerful presentation system that can **receive live transmissions of a simulation** and send them to a suitable playback device (TV screen, monitor, or projector). **Streams in video-supported debriefings** as well as **SIMStation Presentations** and **SIMStation Room Casts** can be played back with it.

- **Immediately after finishing a recording, the recording is available for debriefing**. The transmission of a 20-minute simulation takes about 10 seconds.

- The annotations set in the training are transferred as a **bookmark list with timecode** to the SIMStation Remote Tablet connected via Wi-Fi. When clicking on an annotation, the video jumps to the respective timecode minus 15 seconds lead time.

- Existing annotations can be filtered, new annotations can be added at any time.

- **Multi-channel support of audio channels** (SIMStation Enterprise systems only)

- Automatic integration of Media Screen content on a second screen (SIMStation Pro und SIMStation Enterprise only)

Administration

- **Recording-Archive:** access to all recordings and annotations; These can be later edited and/or expanded.

    - Export of all video and audio tracks as platform-independent video file (MP4 format), export of annotations as Excel list

- **Scenario Designer:** scenario design through the individual filling of the scenario library

    - Bookmark library: creating and managing the annotation icons for the scenario

    - Media library: uploading and managing simulation-related media content (e.g., images, videos, PDF documents)

    - "Audio to Room" library: uploading and managing audio files (MP3 format) for playback in the simulation rooms (e.g., helicopter noise, traffic noise, background noise of an emergency room).

    - Checklist library: creating and managing checklists for the evaluation of the simulation training

- **Event Planner**: creation of multi-day simulation events (e.g., OSCE) – incl. room reservation and communication with all simulation participants (only with SIMStation Pro and SIMStation Enterprise as optional upgrade)

- **User Management**: easy management of account rights for the different user groups (only for SIMStation Pro and SIMStation Enterprise as optional upgrade)

- **Digital Signage**: playing of media content on info and door screens (only with SIMStation Enterprise as optional upgrade)

More Useful Apps

- **Room Cast**: own application to send a stream from any simulation room to any (debriefing)player

- **Cam View**: This application loads a camera stream from a freely selectable room onto the SIMStation Remote Tablet (with a low frame rate) so that a manual alignment of a camera can be performed by one person.

- **Stage Designer**: modification of camera settings and saving of camera positions

- **Dashboard /Home screen**: This user interface is adaptable. Depending on the use and needs, the favorite applications can be inserted and arranged individually.

- **Event Dashboard**: a calendar-based application for overview and control of complex simulation events