

CAE Vimedix

The most comprehensive and easy-to-use ultrasound simulator

Accelerate the ultrasound learning process in cardiac and abdominal scanning

CAE Vimedix is an innovative ultrasound training platform that makes learning cardiac, lung and abdominal ultrasound easier and faster.

Now available as a software update, **CAE Vimedix 3.1** allows flexibility for remote learning while your simulation lab is distancing or closed. Our library of more than 200 pathologies offers new capabilities for virtual lectures, with quick lesson building, complementary ICCU e-Learning, and interactive, hands-on practice using a remote manikin and ultrasound probes.

With the addition of Microsoft HoloLens 2 mixed reality, we deliver a truly immersive experience that will engage your learners while elevating their understanding of anatomy and clinical assessment.

Differentiating Features

- Simulator content and kinematic metrics validated through numerous peer-reviewed scientific journals
- Optional add-on modules (cardiac, lung, abdominal) that support multiple ultrasound applications on a single common platform, with a single manikin
- Self-directed instructional content that makes ultrasound learning easily scalable
- Continuous development of new functionalities and content, including a COVID-19 case study
- 3D/4D cardiac ultrasound for advanced assessment and diagnosis
- Remote learning capabilities to livestream teach and/or learn predetermined curricula
- Ability to customize content and curriculum with custom filters and pre-sets
- Localization available to support various markets
- VimedixAR application for Microsoft HoloLens 2 allows enhanced learning via Augmented Reality (AR)

Learn more about CAE Vimedix at caehealthcare.com.

Your worldwide training partner of choice



Technical Specifications

Standard Equipment

- Male multi-purpose manikin
- Phased Array, Transesophageal and/or Curvilinear transducer(s)
- HP® Omen Laptop with wireless mouse
- Cables (Power, DVI, Ethernet)
- Electronic User Guide
- Option to add Ob/Gyn capabilities to the simulator (including a female manikin, Curvilinear and/or Transvaginal transducer)

Optional Software

- Additional cardiac and abdominal pathology packages available

Specifications, Dimensions

- Bob 1.3 male multi-purpose manikin
- 39.5 X 17 in (100 X 43 cm)
- 31.5 lbs (14.3 kg)

Optional Catherine female multi-purpose manikin

- 38 X 18.5 in (96.5 X 47 cm)
- 30 lbs (13.6 kg)

Computer

- 15.94 X 11.01 X 1.06 in (W X D X H) (40.49 X 27.97 X 2.69 cm)
- 7.04 lbs (3.2 kg)
- CPU: Intel® Core™ i9-9880H
- Hard drive: 1 TB SSD
- Memory: 16 GB
- Graphics card: NVIDIA® GeForce® RTX 2080 (8 GB)
- OS: Microsoft® Windows® 10
- Screen: 17.3 in

External Polhemus Box

- 7 X 6 X 2 in (17.78 X 15.24 X 5.08 cm)
- 1.65 lbs (0.62 kg)

Electrical

- Operates at 110/240V 50/60Hz

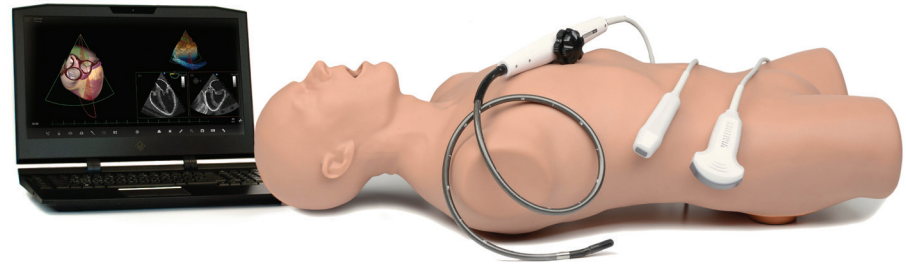
Ambient Temperature Range

- 41°F – 95°F (5°C – 35°C)

Humidity

- 40 – 80%

Key Features



Simulator Capabilities

- Manikin-based system that replicates real-time visual, physical and ergonomic attributes of ultrasound scanning
 - Palpable thoracic and pelvic bony landmarks, combined with motion
 - tracking system, allow 6 degrees of freedom (DOF) to align physical manikin with virtual anatomy in Vimedix software
- Supports Transthoracic Echocardiography (TTE), Transesophageal Echocardiography (TEE), and abdominal/pelvic ultrasound scanning on a single platform
- Simulation of cardiac, lung and abdominal ultrasound images and functions
 - 2D, Bi-Plane and M-Mode views
 - Adjustable image settings (depth, viewing angle, gain, contrast)
 - Color Doppler, Continuous Wave Doppler and Pulsed Wave Doppler of the heart
 - Color Doppler of the inferior vena cava for specific pathologies
 - Ability to complete measurements, including length/diameter, circumference and area
 - Echo report function, with automated calculations and drop-down menus consistent with typical echo scanning protocols and workflow
 - Zoom function for ultrasound images
 - Ability to freeze image and scroll through frames
 - Ability to add noise on ultrasound view to alter image quality and level of viewing difficulty
- Over 200 available pathologies, with the option to hide pathology names (Stealth Mode)
- 2D AR showing animated anatomy with labeled structures that can be moved and rotated to learn structure identification and spatial orientation
- Ability to enable/disable anatomical structures on 2D AR display, and bone, lung and abdominal artefacts on ultrasound display
- Ability to switch between split screen and single screen views of 2D AR display and ultrasound display
- Self-directed instructional content modules that allow learners to practice in the absence of a live instructor:
 - Basic probe movements
 - Optimization of image settings
 - Obtaining views using Target Cut Planes
 - Echocardiographic measurements
- Target Cut Plane exercises that provide reference guides and images to aid learners in identifying the correct probe positioning / orientation to obtain specific ultrasound views
- Quantifiable kinematic metrics that can be recorded during Target Cut Plane exercises to assess and monitor user performance
- Ability to capture and export images, videos, reports and metrics
- Ability to connect the simulator to a second display, with the option to either extend or mirror the Vimedix interface
- Access to CAE Healthcare's ICCU e-Learning curricula

