



CAE Vimedix 3.2 for Cardiac/Abdomen

The most
comprehensive
and easy-to-use
ultrasound simulator

Enhance the ultrasound learning process in cardiac and abdominal scanning

While CAE's Vimedix 3.1 paved the way for remote learning, the **CAE Vimedix 3.2** software update includes new enhancements that put CAE Vimedix on the leading edge as the only ultrasound simulator that trains across multiple disciplines—all on a single platform.

With enhanced fidelity ultrasonography realism, 3D/4D ultrasound scanning and multiplanar reconstruction (MPR) across the entire Vimedix 3.0 platform, Vimedix 3.2 builds upon expertise, helping learners to become ready for real-life clinical scenarios.

Differentiating Features

- 3D/4D ultrasound with MPR for Transthoracic Echocardiography (TTE), Transesophageal Echocardiography (TEE), and Transgastric Abdominal Ultrasonography (TGAUS) for advanced assessment and diagnosis
- Ability to customize content and curriculum with custom filters and presets
- VimedixAR application for Microsoft HoloLens 2 allows enhanced learning via Augmented Reality (AR)
- 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
- Empowers instructors to create scanning exercises and collect learner metrics
- Continuous development of new functionalities and content, including a COVID-19 case study
- Remote learning capabilities to teach via livestream and/or learn predetermined curricula
- Localization available to support various markets

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)
- 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%

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Key Features

- 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 to align physical manikin with virtual anatomy in Vimedix software
- Supports TTE, TEE and TGAUS ultrasound scanning on a single platform, with guidelines and training exercises
- Simulation of cardiac, lung and abdominal ultrasound images and functions
 - 2D/3D/4D, Biplane, M-mode views
 - MPR
 - Adjustable image settings (depth, viewing angle, gain, contrast)
 - Color flow Doppler and spectral Doppler (pulsed-wave and continuous-wave) of the heart
 - Color flow 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
- More than 200 available pathologies, with Stealth Mode option (hides pathology names)
- Enable/disable animated 2D AR display of labeled anatomical structures, that can be moved/rotated to learn structure identification and spatial orientation; and bone, lung and abdominal artefacts on ultrasound display
- Detailed cardiac and abdominal anatomy
- 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 (TCPs)
 - Echocardiographic measurements
- Interactive remote education tool using any web-conference application
- TCP 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 TCP 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

For More information, please contact :

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