Enhance the ultrasound learning process in cardiac and abdominal scanning

Vimedix is now a complete two-in-one system, powered by new features that reinvent ultrasound education. The all-new virtual probe feature enables interactive web-based ultrasound workshops where remote participants can acquire ultrasound scans using their desktop mouse. On-site education is enhanced with self-moderated activities created by instructors.

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 comprehensive activities
- VimedixAR application for Microsoft HoloLens 2 allows enhanced teaching and learning via Augmented Reality exercises created by instructors
- 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 capabilities and content, including a COVID-19 case study
- “Virtual Mouse” mode to host interactive web-based workshops
- Remote capabilities to teach via livestream and/or learn predetermined curricula
- Localization available to support various markets

Learn more about CAE Vimedix 3.3 at caehealthcare.com/vimedix.
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%

CAE Vimedix 3.3 for Cardiac/Abdomen

Key Features
- Dual system featuring two learning options, a manikin and virtual probe, 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 artifacts 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 tools 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
- POCUS eLearning content and self-moderated scanning exercises to become proficient in POCUS
- 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