



**CAE**

# CAE CathLabVR

**Administrator's Guide**



# END USER LICENSE AGREEMENT FOR CAE PRODUCTS

CAREFULLY READ THE FOLLOWING LICENSE. YOU ACCEPT AND AGREE TO BE BOUND BY THIS END USER LICENSE AGREEMENT BY CLICKING THE BUTTON LABELED "ACCEPT" THAT IS DISPLAYED. IF YOU DO NOT AGREE TO THIS END USER LICENSE AGREEMENT, CLICK THE BUTTON LABELED "DECLINE" AND THE SOFTWARE ACCESS WILL BE PROHIBITED.

The software you are about to access is provided to you pursuant to the purchase of the Product by the legal entity which employs you, or which you represent (the "licensee" or "You"), from CAE. This purchase of the Product is subject to CAE's Healthcare Education Products General Terms and Conditions (the "HEPGTC") and this End-User License agreement ("Licensee"). The HEPGTC can be found at

## 1. Interpretations and Definitions

Whenever used in this License, the following terms shall have the meaning set out below:

**"Authorized Users"** shall mean any person authorized to access the Produce, which shall include the Licensee's employees, agents, representatives, medical staff and students.

**"Confidential Information"** means any and all scientific and technical information which is in the possession of, or belonging to, CAE and relating to the Product, including without limitation, all Data, Software, trade secrets, know-how, processes, methodologies, samples, components, analyses, compilations, guides and other information or documents prepared by CAE, its subsidiaries and affiliates and/or their officers, servants, agents, representatives, employees or advisers which contain or are otherwise generated from or reflect any CAE proprietary information, whether or not covered by intellectual property rights or explicitly designated as confidential or proprietary, which is disclosed by any means in written, oral, electronic, or any other form.

**"Data"** means any documentation or other information provided to Licensee in relation with the Product.

**"Product"** means any equipment, components, parts, and materials purchased by the Licensee.

**"Purpose"** means the use of the Software and the Data solely for the operation and maintenance of the Product, and the use of the Product solely as an educational tool.

**"Software"** means the software, in object code only, embedded in or bundled with the Product or required to operate the Product

**"Work"** means any images created by the Products which may have the option to be save or reproduced by the Licensee.

## 2. License

**2.1** In consideration of Licensee's agreement and compliance with the terms and conditions contained in the HEPGTC and in this License, CAE grants to Licensee a personal, non-exclusive, non-transferable license to use the Software and Data exclusively with the Product, and with the device on which this License appears.

**2.2** Without limiting the foregoing or any other terms in this License, Licensee shall, and shall ensure that any Authorized Users:

**2.3** Except for the License granted herein, CAE grants no express or implied right under any patent, copyright, mask work right, trademark, know how or other intellectual property rights. The Licensee shall not obtain any rights to CAE's property, or any part thereof, by implication, estoppel or otherwise. Title to and full ownership of any trade secrets and other intellectual property rights related to the Product and components thereof shall remain with CAE and, if applicable, its suppliers. For clarification, Licensee agrees that the source code for the Software is a trade secret of CAE and only CAE shall have the right to alter, maintain, enhance or otherwise modify the Software.

- a. not copy (save and except for normal back up and disaster recovery purposes provided such copy shall include CAE's copyright and any other proprietary notices indicated on the Software and Data), ghost, export or produce any derivative works from the Product, or any part thereof, not network the Product without CAE's prior written approval, or make it available for concurrent use;
- b. not sell, attempt to sell or transfer (unless in compliance with the HEPGTC), sub-license, encumber the Software or Data;
- c. not modify the Product in any way, combine with other programs, or reverse engineer, screen scratch, decompile or disassemble any Software nor otherwise attempt to create or derive the source code related thereto;
- d. not deface or remove any copyright or proprietary notices;
- e. not use the Product without the key, if provided with the Product, or attempt to develop or develop any means or technology which would enable Licensee to bypass the use of the key to operate the Product;
- f. prevent anyone other than Authorized Users from accessing or using the Product;
- g. not incorporate the Product, in whole or in part, to any product or service that Licensee would make available to a third party, on a commercial basis or not.

**2.4** Notwithstanding anything else contained in this License, in no event shall Licensee use the Product and/or Confidential Information to enable, support, or otherwise aid Licensee or a third party to develop any product, software or service competitive with any of CAE's products.

**2.5** CAE reserves the right to embed a software security mechanism within the Product to monitor usage of the Product to verify Licensee's compliance with this Agreement, as well as to control access to the Software through use of license administration software.

**2.6** Licensee hereby recognizes that the entire rights, title and interests in and to Work remain the exclusive property of CAE. Licensee shall not modify such Work in any way whatsoever and shall not remove or alter any CAE notices. However, Licensee is permitted to produce and reproduce such Work only for non-commercial educational purposes.

---

### 3. Consent to Use of Collection Data and Feedback

**3.1** Licensee agrees that CAE may collect and use technical data and related information, times (“**Collection Data**”), including but not limited to technical information about your Product that is gathered periodically to facilitate the provision of Software updates, Product support and other services related to your Product such as Software feature usage and run times. Such Collected Data shall be anonymous, and shall not personally identify any individual users. In the event that Licensee wishes to opt-out of permitting CAE from having access to Collected Data, Licensee must inform CAE of this requirement..

**3.2** Upon the request of CAE, Licensee agrees to provide CAE, from time to time, with comments, suggestions, data, information or feedback (“**Feedback**”) on the Product.

**3.3** Licensee acknowledges and agrees that such Feedback and Collected Data may be freely used by CAE, at its sole discretion, for the design, development, improvement, marketing and commercialization of its products and services, without any restrictions based on confidentiality or intellectual property rights.

### 4. Term and Termination

**4.1** This License shall become effective as of the date of your acceptance of this License and shall remain in effect until terminated as provided hereafter.

**4.2** This License terminates immediately upon termination of the HEPGTC.

**4.3** CAE may terminate this License immediately, upon written notice, should Licensee (a) attempt to, directly or indirectly, assign or transfer any of the rights granted to it pursuant to this License without CAE’s prior written authorization, (b) disclose, in whole or in part, any Confidential Information, (c) use the Software otherwise than as authorized herein, or (d) is otherwise in breach of its obligations to protect the intellectual property contained in the Product. In addition, should Licensee fail to comply with any other terms and conditions of this Agreement and such failure is not cured within thirty (30) days after receipt of CAE’s written notice, CAE may terminate this Agreement immediately.

**4.4** Upon termination of this License, Licensee agrees to immediately discontinue use of the Confidential Information and the Product, and to return same to CAE as well as any copies.

**4.5** The following shall survive and continue in full force and effect notwithstanding any termination of this License: the obligations of Licensee under Sections 2 (License), 5 (Non-Disclosure); as well as any other clauses which by their nature and context are intended to survive.

### 5. Non-Disclosure

**5.1** Licensee agrees to keep this License and all Confidential Information obtained hereunder in strict confidence, and shall only disclose same a) to Authorized Users solely for the Purpose and provided such access to the Product conforms, at all times, to the terms and conditions governing the use of the Product contained herein, or b) if required to be disclosed by law, and only to the extent of such disclosure and limited to the purpose requested, with prior notice to CAE to permit it to seek an appropriate remedy to prevent the disclosure, or alternatively to agree to the terms of such disclosure.

**5.2** The obligations of confidentiality, use and non-disclosure referred to in this Section 5 shall not apply to information which: (i) is or becomes publicly available through no fault of Licensee; (ii) was already in the rightful possession of Licensee prior to its receipt from CAE; (iii) is independently developed by Licensee, provided it is not, in whole or in part, related to the Product; and (iv) is obtained by Licensee in good faith and on a non-confidential basis and without a use restriction from a third party who lawfully obtained and disclosed such information. However, Confidential Information does not come within the foregoing exceptions merely because features of it may be found separately or within a general disclosure in the public domain.

**5.3** Licensee agrees to be responsible for enforcing the terms of this Section 5 and to take such action, legal or otherwise, to the extent necessary to cause anyone having access to the Confidential Information to comply with the terms and conditions set forth herein (including all actions that Licensee would take to protect its own trade secrets and confidential information but with not less than reasonable care). Licensee shall be responsible and indemnify, defend and hold harmless CAE for any default caused by any such persons.

## **6. Irreparable Harm**

**6.1** Licensee acknowledges that the Software and Data constitute a special, irreplaceable asset of great value to CAE, and that a breach, in any way, of any of Licensee's obligations under Sections 2 (License), and 5 (Non-Disclosure) hereof would cause serious and irreparable harm to CAE which may not be adequately compensated for in damages. If the Licensee breaches any of such provisions, Licensee consents to an injunction being issued against it restraining it from any further breach of such provision, without derogation from any other remedy which CAE may have in the event of such a breach.

## **7. Warranty**

**7.1** THE SOLE WARRANTIES PROVIDED BY CAE ARE LIMITED TO THE WARRANTIES PROVIDED IN THE HEPGTC. ANY WARRANTIES PROVIDED ARE PERSONAL AND NOT TRANSFERABLE.

## **8. Limitation of Liability**

**8.1** CAE'S LIABILITY SHALL IN NO CIRCUMSTANCES EXCEED THE LIMITATION OF LIABILITY INDICATED IN THE HEPGTC.

**8.2** IN NO EVENT WILL CAE BE LIABLE FOR ANY LOSS OF USE, LOSS OF PROFIT, INTERRUPTION OF BUSINESS, OR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING LOST PROFITS), REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY, OR OTHERWISE, EVEN IF CAE HAS BEEN ADVISED OR SHOULD HAVE BEEN AWARE OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL CAE'S LIABILITY TO LICENSEE FOR ANY CLAIM, WHETHER IN CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY, EXCEED THE PURCHASE PRICE OF THE PRODUCT PAID BY LICENSEE.

---

## 9. Third-Party Software

**9.1** The Software may come bundled or otherwise be distributed with open source or other third party software, which is subject to the terms and conditions of the specific license under which it is distributed. OPEN SOURCE SOFTWARE IS PROVIDED BY CAE "AS IS" WITHOUT ANY WARRANTY, EXPRESS, IMPLIED, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS EULA, AS IT RELATES TO ANY AND ALL CLAIMS ARISING OUT OF OR IN CONNECTION WITH OPEN SOURCE SOFTWARE, DELL SHALL HAVE NO LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF OPEN SOURCE SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

## 10. Administrative Positions

**10.1 Applicable Law and Jurisdiction:** This License shall be governed by, subject to, and interpreted according to the laws of the State of Florida, U. S. A., without regard to its conflict of law rules. In all cases, the Parties expressly exclude and waive the application of the United Nations Convention on Commercial Agreements for the International Sale of Goods (1980) (Vienna Sales Convention) as amended. The exclusive jurisdiction for the resolution of any and all disputes arising out of or in connection with this Agreement shall be a court of appropriate jurisdiction located in the State of Florida, U.S.A. Each Party hereby waives any right that it might otherwise have to object to such venue or seek dismissal of the action on the basis of forum non-conveniens. EACH PARTY HERETO IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS LICENSE. Notwithstanding the foregoing, if a party seeks injunctive proceedings to preserve confidentiality obligations or intellectual property rights, then it is entitled to seek relief before the competent court/body of any jurisdiction.

**10.2 United States Government Licensee:** If Licensee is the United States Government ("U.S. Government") or a unit or agency of the U.S. Government, the Software and Data are deemed to be "commercial computer software" and "commercial computer software documentation", respectively, pursuant to DFAR Section 227.7202 and FAR Section 12.212 b) as applicable. Any use, modification, reproduction, release, performance, display, or disclosure of the Software and/or Data by the U. S. Government, or any of its units or agencies shall be governed solely by the terms of this License and the HEPGTC. Any technical data provided by CAE with the Product that is not covered by the above provisions is deemed to be "technical data-commercial items" pursuant to DFAR Section 252.227.7015(a).

**10.3 Export Controls:** Licensee acknowledges that the laws and regulations of the United States may restrict the export and re-export of commodities and technical data of United States origin, including the Software. Licensee agrees that it will not export or re-export Software of, or containing items of, United States origin, in any form, without the appropriate United States and foreign governmental licenses.

**10.4 Excluded Data:** Licensee acknowledges that Software provided under this License are not designed with security and access management for the processing and/or storage of the following categories of data: (1) data that is classified and or used on the U.S. Munitions list, including software and technical data; (2) articles, services and related technical data designated as defense articles and defense services; (3) ITAR (International Traffic in Arms Regulations) related data; and (4) other personally identifiable information that is subject to heightened security requirements as a result of Licensee's internal policies or practices or by law (collectively referred to as "**Excluded Data**"). Licensee hereby agrees that Licensee is solely responsible for reviewing its data that will be provided to CAE (or to which CAE will have access) to ensure that it does not contain Excluded Data.

**10.5 No Waiver:** No omission or delay by either party at any time to enforce a right or remedy reserved to it or to require performance of any of the terms of this License at the times designated, shall be a waiver of such right or remedy to which the party is entitled, nor shall it in any way affect the right of the party to subsequently enforce such provisions.

**10.6 Modification:** No provision of this License shall be deemed waived, amended or modified by either party unless the waiver, amendment or modification is in writing and signed by each of the parties to this License.

**10.7 Severity:** If any one or more of the provisions of this License is for any reason held invalid, illegal or unenforceable, the remaining provisions of this Agreement will be unimpaired.

## End of End User License Agreement

# SYSTEM SPECIFICATIONS

Device	
Dimensions	69.5" W x 9.8" D x 8.9" H 176.5cm W x 24.9cm D x 22.7cm H
Weight	45 lbs (20.9 kg)
Electrical	24 V DC, 3A (72W max)
Environmental Conditions	Operating temperature: 50° to 90° F (10° to 32° C) Relative Humidity: 20 to 80%
Storage Conditions	Non-Operating temperature: -40° to -149° F (-40° to 65° C) Relative Humidity: 20 to 80%

Cart	
Dimensions	95.6" W x 60.6" D x 71.6" H 2429cm W x 154cm D x 181.9cm H
Weight	250 lbs (113 kg)

Computer (HP Z620)	
Dimensions	17.5" H x 6.75" W x 18.3" D 44.45cm H x 17.15cm W x 46.48cm D
Weight	49.9 lbs (22.6kg)
Electrical	100 to 240 VAC
Environmental Conditions	Operating temperature: 40° to 95° F (5° to 35° C) Relative humidity: 8 to 85%
Storage Conditions	Non-operating temperature: -40° to -140° F (-40° to 60° C) Relative humidity: 8 to 90%

**Note:** For upgrade instructions and Embedtek computer Specifications, refer to *Appendix C*.



---

# CAUTIONS AND WARNINGS

Please read and understand these cautions and warnings before you begin using the simulator.

- Keep all electronic equipment free from high humidity or liquids
- Avoid weighing down the equipment with any tools or accessories not relevant to the immediately exercise
- Do not operate your equipment with any covers removed
- Do not use your equipment in a wet environment. Protect equipment for liquid intrusion
- Do not put any object on top of the bottom platform. Movement of the lift mechanism can cause crush hazard, resulting in possible bodily injuries and damaged equipment.
- Do not jam the motor lift mechanism onto an object. This is a misuse and subjects the motor to burn out. It can also result in possible bodily injuries and damaged equipment.
- Tip-over hazard: Do not move your equipment without fully lowering the lift mechanism. Failure to do so can result in possible bodily injury and damaged equipment.
- Improper or prolonged keyboard use may results in injury
- Viewing a monitor screen for extended period of time may result in eye strain
- Ensure that the equipment relies on circuit protection in the building supple
- Install equipment near an electric socket. Ensure cables do not represent a hazard

End User License Agreement For CAE Products .....	i
System Specifications .....	vii
Cautions and Warnings .....	viii
Introduction .....	1
Contained in this Admin Guide .....	2
Equipment Overview .....	3
CathLabVR Simulator .....	4
Anatomy Plate .....	4
CathLabVR Computer .....	4
CathLabVR Cart .....	5
Monitor Pole .....	5
Extension Tray .....	5
CathLabVR Shelf .....	5
Control Box .....	5
Keyboard and Mouse .....	6
Monitors .....	6
Monitor Power Cable .....	6
Monitor DVI Cables .....	6
Foot Pedals .....	6
Accessories .....	6
Embolic Protection Tool Kit .....	7
CRDM Tool Kit .....	7
Vascular Tool Kit .....	8
Before Beginning Setup .....	8
Setup .....	9
CathLabVR Cart Setup .....	9
Step 1: Attach the Monitor Pole .....	10
Step 2: Attach the Shelf .....	11
Step 3: Attach the Simulator .....	12
Step 4: Attach the Extension Tray .....	13
Step 5: Attach the Control Box Tray .....	13

- Step 6: Attach the Keyboard Tray..... 14
- Step 7: Attach the Anatomy Plate ..... 14
- Step 8: Mount the Monitors..... 15
- Step 9: Connect the DVI Cables to the Monitors..... 15
- Step 11: Connect the Speaker Plug to a Monitor ..... 16
- Step 10: Connect the Power Cables to the Monitors..... 16
- Step 12: Connect the Cart Power Cable to the Power Source ..... 16
- CathLabVR Simulator Setup..... 17
  - Step 1: Remove the Shipping Lock..... 18
  - Step 2: Locate the Catheters and Wires ..... 19
  - Step 3: Connect the Syringe Tools ..... 20
  - Step 4: Connect the Instrumented Tools ..... 20
  - Step 5: Connect the Foot Pedals ..... 21
  - Step 6: Connect the Simulator to the Computer..... 22
  - Step 7: Connect the Power Cable to the Simulator..... 23
  - Step 8: Power On the Simulator ..... 23
- CathLabVR Computer Setup ..... 24
  - Step 1: Connect the Keyboard and Mouse Cables..... 24
  - Step 2: Connect the Monitor Cables ..... 25
  - Step 3: Connect the Speaker Plug..... 25
  - Step 4: Power On the Computer ..... 26
  - Step 5: Power On the Monitors ..... 27
- Using the Administrator Tools ..... 29
  - Starting the Software ..... 30
    - Interface Overview ..... 31
  - Creating Users and Groups ..... 32
    - Creating Users ..... 33
    - Editing User Information..... 38
    - Deactivating Users ..... 40
    - Activating Users..... 41
    - Creating Groups ..... 42
    - Modifying Groups ..... 44

Creating a Course .....	46
Editing a Course .....	47
Creating Tasks.....	52
Renaming a Task .....	57
Assigning a User to a Task .....	58
Assigning a Group to a Task .....	59
Assigning a Course to a Task .....	60
Deleting a Task.....	61
Adding Faculty Content.....	62
Emailing Users and Groups.....	63
Emailing Users .....	63
Emailing Groups .....	65
Adjusting the Network Settings .....	67
Adjusting the Network Settings .....	69
Advanced Hardware Calibration .....	71
Testing the Hardware.....	76
Configuring the C-Arm .....	78
Backing Up the Database .....	80
Restoring the Database .....	83
Modifying Language Preferences .....	85
Adjusting the Volume Controls .....	87
Printing Data .....	89
Printing Data to a PDF File .....	92
Printing Data to a Network Printer .....	95
Importing Users .....	96
Exporting Users and Groups .....	99
Exporting Results.....	103
Hiding the Side Panel .....	108
Exiting the Software .....	109
Care and Maintenance .....	111
CAE Assurance Programs .....	111
General Information .....	111

---

---

Units Out of Plan .....	111
Plan Period.....	111
Limitations of Plan .....	112
Return Materials Authorization (RMA).....	112
Training for LifeTM.....	112
Support & Maintenance Renewal Program.....	113
Extended Support & Maintenance Service Program .....	113
Premier Support & Maintenance Service Program.....	113
Premier Plus Support & Maintenance Program.....	114
System Software Upgrade Support.....	115
Time and Materials.....	115
How to Contact Customer Service.....	116
Frequently Asked Questions.....	117
Software Questions .....	117
Module Instruments and Required Equipment.....	126
Cardiac Rhythm Disease Management (CRDM) .....	126
Cardiac Surgery .....	126
Percutaneous Coronary Interventions (PCI) .....	127
Percutaneous Peripheral Interventions (PPI) .....	128
Appendix C - .....	129
Upgrade Instructions and Embedtek Computer Specifications.....	129
Medtronic CathLab VR™ Upgrade instructions.....	129

# INTRODUCTION

This CathLabVR™ Simulator User Guide provides information about setting up the simulator, navigating the user interface, and maintaining the system.

The CathLabVR System allows physicians, nurses and technicians to practice endovascular diagnostic and intervention procedures in a highly realistic, reproducible and safe training environment. Trainees can navigate realistically modified endovascular tools through a virtual anatomy based on actual patient data. 3-D graphics, auditory and state-of-the-art haptic feedback enhance the virtual reality.

**IMPORTANT:** The CathLabVR Simulator is a training tool. The simulator is not intended to diagnose the condition of a live human being or identify a life-threatening situation. The CathVR Simulator is one of a series of didactic tools that can be used to improve training for endovascular diagnostic and intervention procedures. This simulator is not intended to replace any courses or hands-on sessions with live subjects, but should be implemented as part of a blended learning solution.



*The CathLabVR Simulator*

---

## Contained in this Admin Guide

This User Guide has been designed for quick access to information on how to use and maintain the CathLabVR Simulator. Please be sure to read and follow the **Cautions and Warnings** on the pages preceding the **Table of Contents**. This is for the safety of users as well as for the protection of the simulator.

The **Equipment Overview** outlines the items that come standard with the purchase of a CathLabVR base unit.

Before using the system, follow the step-by-step instructions included in the **Setup** section.

The **Using the Administrator Tools** section provides instructions on the use of the various administrative software features as well as how to create and save a new user.

The **Care and Maintenance** section contains warranty details and cleanup and care instructions that must be followed to ensure optimal functioning of the CathLabVR Simulator.

The **Frequently Asked Questions** section addresses some of the more common troubleshooting concerns.

The **Module Descriptions** appendix outlines the specific tools and accessories that should be used in each of the procedures for the CathLabVR.

The **Keyboard Shortcuts** appendix describes the shortcut keys and their functions for the CathLabVR.

# EQUIPMENT OVERVIEW

The CathLabVR™ Simulator comes standard with the necessary equipment and accessories for using the base unit.

Standard Equipment
CathLabVR Simulator
Anatomy Plate
CathLabVR Computer
CathLabVR Cart
Monitor Pole
Extension Tray
Shelf
Control Box
Keyboard and Mouse
Monitors (2)
Monitor Power Cable
DVI Monitor Cables (2)
Dual Foot Pedals
Accessories

**Note:** As you would with any shipment, check the inventory against the packing invoice to verify that all components have been received.



## CathLabVR Simulator

The CathLabVR simulator is one of the main hardware components for the CathLabVR unit. All accessories for the endovascular modules are connected or inserted into the simulator to display the tool on-screen during a procedure. The carriages inside the simulator correspond with the specific tools for each individual procedure and require proper care to ensure the product remains in good working condition.



*The CathLabVR Simulator*

For more information about using the simulator, see the *CathLabVR User Guide*.

## Anatomy Plate

The CathLabVR anatomy plate is a flesh-tone plastic covering that hooks onto the CathLabVR manikin and serves as the insertion point for the catheter and wire accessories.



*The Anatomy Plate*

## CathLabVR Computer

The CathLabVR computer is a desktop workstation. The workstation runs on a Windows platform and supports communication between the CathLabVR software and the CathLabVR manikin.

# CathLabVR Cart

The CathLabVR cart is the structure upon which the CathLabVR manikin, computer and shelves is secured. The monitor pole is attached to the back of the cart and the computer is stored inside the cart. The manikin, shelf and trays attach to the top of the cart.

For more information on setting up the cart, see *Setup*.

# Monitor Pole

The monitor pole attaches to the cart structure and contains a monitor arm for mounting the two flat screen monitors.

# Extension Tray

The extension tray attaches to the main cart structure and serves as a resting place for accessories prior to use or insertion.

# CathLabVR Shelf

The CathLabVR contains a shelf upon which the Control Box is placed.

# Control Box

The control box connects to the computer and controls the C-Arm movements, table movements, zoom and x-ray shutters.



*The Control Box*

## Keyboard and Mouse

The keyboard and mouse connect to the computer and allow users to navigate through the software and enter information as necessary.

## Monitors

The CathLabVR comes standard with two flat screen monitors. This dual monitor setup allows users to view their progress and different functions during the simulation with efficiency and accuracy.

## Monitor Power Cable

The CathLabVR contains one monitor power cable with two female receptors, each connecting to a separate monitor.

## Monitor DVI Cables

The CathLabVR includes two monitor DVI cables which connect the monitors to the computer.

## Foot Pedals

The dual foot pedals connect directly to the back of the manikin and serve as a necessary tool for completing most simulations on the CathLabVR. The Cine (pronounced "sin-nee") pedal captures video clips of actions being performed during a procedure. The Fluoro pedal controls the distribution of x-ray from the C-Arm during a procedure.

**Note:** In all procedures of the CRDM module, the Fluoro feature is activated by the RIGHT pedal and the Cine feature is activated by the LEFT pedal.



*The Foot Pedals*

## Accessories

The CathLabVR base unit comes with three tool kits of accessories: the Embolic Protection Tool Kit, Vascular Tool Kit and the CRDM Tool Kit. The accessories are provided for use in the different learning modules.

---

## Embolic Protection Tool Kit

The Embolic Protection Tool Kit contains the following accessories:

- Filter Basket EPD Handle
- Occlusive Ballon EPD Handle
- Self-expanding Stent Handle
- 0.014" Guardwire wire
- Embolectomy aspiration catheter
- Syringe

## CRDM Tool Kit

The CRDM Tool Kit contains the following accessories:

- Accessory handles for deflectable catheters (2)
- Guidewire steering handle (torque tool)
- Deflectable (guide) catheters
- 0.035" Diagnostic guidewire
- 0.016" Nitinol guidewire
- Cook introducer valve
- Left heart module, hybrid lead 2187
- 0.016" gray stylet
- Left heart module hybrid lead 4193
- 55cm Attain (green) catheter
- Modified Attain 6215 venogram balloon catheter
- Venogram balloon syringe
- Inner deflectable catheter
- Left heart module, hybrid lead 4194
- Attain II (outer and inner) subselecting catheters

## Vascular Tool Kit

The vascular tool kit contains the following accessories:

- Guidewire steering handle
- 30 ATM inflation device
- Diagnostic catheter
- Guide catheter
- Modified OTW therapeutic catheter
- Modified RX therapeutic catheter
- .035" diagnostic guidewire
- .035" stiff guidewire
- .016" guidewire
- .14" interventional guidewire
- Modified MX2 therapeutic catheter
- Contrast syringe

## Before Beginning Setup

Proper operation of the CathLabVR simulation requires correct configuration. Before setting up the system, keep in mind these basic guidelines:

- Read and understand the Cautions and Warnings in the beginning of this Administrator's Guide
- Follow and complete the sequence of Setup steps carefully
- Do not power on any components until instructed in the text
- Do not install any Windows updates or anti-virus software when connecting to the network
- When unpacking the simulator for the first time, use box cutters carefully to protect both the packaging and the product

**Note:** Keep all original shipping materials, including boxes. Warranty and repair items must be returned and shipped in their original packaging.

# SETUP

The CathLabVR simulator setup is separated by the three major components: the CathLabVR cart, the CathLabVR simulator and the CathLabVR computer.

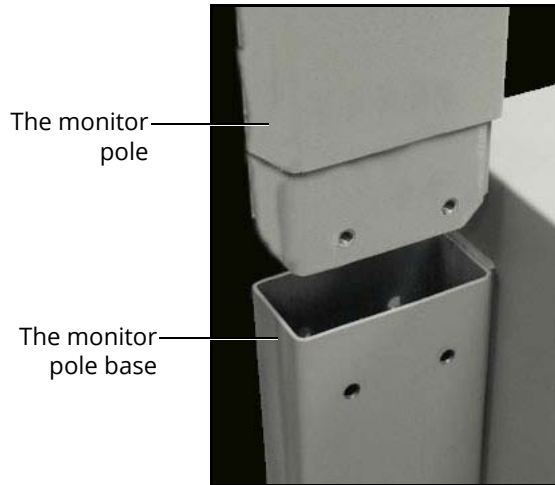
## CathLabVR Cart Setup

<b>CathLabVR Cart Setup</b>	
<b>1</b>	<b>Attach the Monitor Pole</b>
<b>2</b>	<b>Attach the Simulator</b>
<b>3</b>	<b>Attach the Shelf</b>
<b>4</b>	<b>Attach the Extension Tray</b>
<b>5</b>	<b>Attach the Control Box Tray</b>
<b>6</b>	<b>Attach the Keyboard Tray</b>
<b>7</b>	<b>Attach the Anatomy Plate</b>
<b>8</b>	<b>Mount the Monitors</b>
<b>9</b>	<b>Connect the Monitor DVI Cables</b>
<b>10</b>	<b>Connect the Monitor Power Cables</b>
<b>11</b>	<b>Connect the Speaker Plug to a Monitor</b>
<b>12</b>	<b>Connect the Power Cable to Power Source</b>

## Step 1: Attach the Monitor Pole

To attach the monitor pole:

- a. Locate the allen wrench provided in the shipment
- b. Slide the monitor pole into the pole base on the back of the cart



***The Monitor Pole Installation***

- c. Align the holes and insert the screws
- d. Tighten the screws using the provided allen wrench



***The Monitor Pole Installation***

## Step 2: Attach the Shelf

**NOTE:** This step requires two people to prevent personal injury or simulator damage.

To attach the shelf:

- a. Align the shelf screws located on the top of the shelf with the holes on the cart
- b. Place the shelf on the cart



*The Shelf Installation*

- c. Secure the screws with a flathead screwdriver



## Step 3: Attach the Simulator

**Note:** This step requires two people to prevent personal injury or simulator damage.

To attach the simulator:

- a. Align the six black feet on the bottom of the simulator above the holders located on the shelf



*The Simulator Alignment*

- b. Gently lower the simulator onto the shelf and ensure that all six feet are securely placed in the holders



*The Simulator Installation*

## Step 4: Attach the Extension Tray

To attach the extension tray:

- a. Align the three holes on right end of the shelf with the holes near the bottom of the tray
- b. Insert screws into the holes and secure each one using a flat head screwdriver



*The Extension Tray Installation*

## Step 5: Attach the Control Box Tray

To attach the control box tray:

- a. Align the holes on the front side of the extension tray with the holes on the control box tray
- b. Insert the screws into the holes and secure the screws using a flat head screwdriver



*The Control Box Tray Installation*

## Step 6: Attach the Keyboard Tray

To attach the keyboard tray:

- a. Align the holes on the back side of the extension tray with the holes on the keyboard tray



*The Control Box Tray Installation*

- b. Insert the screws and secure with a flat head screwdriver

## Step 7: Attach the Anatomy Plate

To attach the anatomy plate:

- a. Hold the hooks on the anatomy plate slightly above the openings on the right side of the simulator



*The Simulator Alignment*

- b. Gently lower the hooks onto the mechanism inside the simulator
- c. Ensure the hooks are secure by gently applying pressure to the top of the anatomy plate

## Step 8: Mount the Monitors

To mount the monitors:

- a. Hold the monitor in place in front of the monitor mount plate
- b. Twist the monitor mount screw through the plate into the back of the monitor



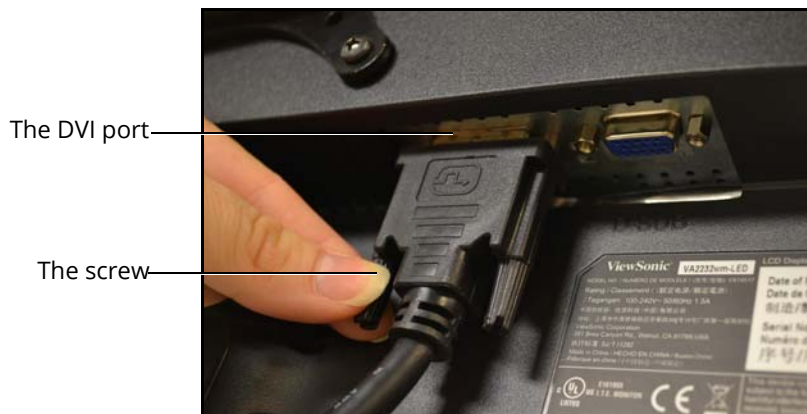
*The Monitor Mount*

- c. Repeat for second monitor

## Step 9: Connect the DVI Cables to the Monitors

To connect the DVI cables to the monitors:

- a. Place the DVI cable connector in the DVI port located on the back of the monitor
- b. Twist the connector screws to the right to secure the cable in the port



*The DVI Cable Connection*

## Step 11: Connect the Speaker Plug to a Monitor

To connect the speaker plug to the monitor, connect the speaker plug to the speaker port on the back of the monitor.



*The Speaker Plug Connection*

## Step 10: Connect the Power Cables to the Monitors

To connect the power cables to the monitors, place the power cable plug in the power port located on the back of the monitor.



*The Power Cable Connection*

## Step 12: Connect the Cart Power Cable to the Power Source

Locate the power strip inside the cart and plug the power strip cable into a power source.

## CathLabVR Simulator Setup

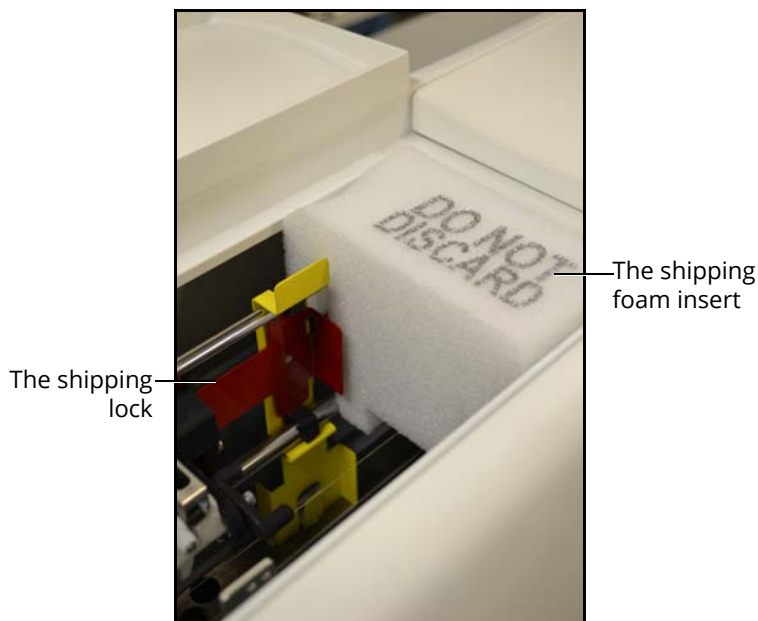
<b>CathLabVR Simulator Setup</b>	
<b>1</b>	<b>Remove the Shipping Lock</b>
<b>2</b>	<b>Locate the Catheters and Wires</b>
<b>3</b>	<b>Connect the Syringe Tools</b>
<b>4</b>	<b>Connect the Instrumented Tools</b>
<b>5</b>	<b>Connect the Foot Pedals</b>
<b>6</b>	<b>Connect the Simulator to the Computer</b>
<b>7</b>	<b>Connect the Power Cable to the Simulator</b>
<b>8</b>	<b>Power on the Simulator</b>

## Step 1: Remove the Shipping Lock

Each CathLabVR simulator is shipped with a lock on the inside to prevent the internal mechanisms from shifting during shipping.

To remove the shipping lock:

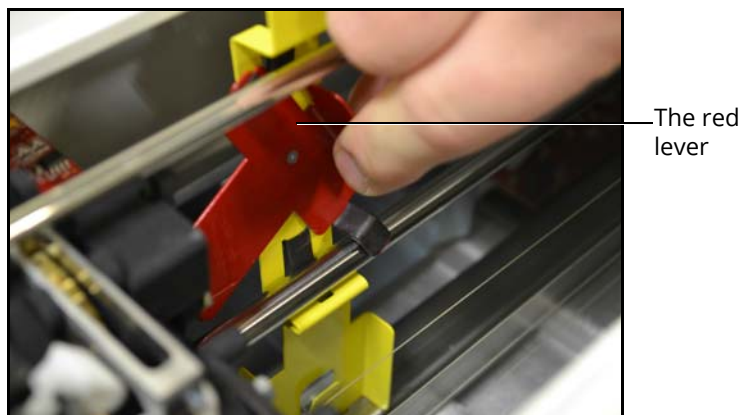
- a. Press down on the top of the left simulator door to access the inside of the simulator
- b. Locate the lock inside the simulator



***The Simulator Shipping Lock***

The lock consists of a red lever and yellow metal mechanism.

- c. Remove the foam insert next to the lock
- d. Locate the red lever and pull the right side of the lever upward until the black hook is no longer attached to the simulator



***The Simulator Shipping Lock***

- e. Press the yellow tab at the bottom of the lock



*The Simulator Shipping Lock*

- f. Gently pull the lock up and out of the simulator

**IMPORTANT:** Do not discard the foam or lock. Place the foam and lock in a secure location. This equipment is necessary for shipping the simulator to prevent internal damage.

## Step 2: Locate the Catheters and Wires

Find the catheters and wires in your shipment and place them somewhere secure for later use.



## Step 3: Connect the Syringe Tools

Any tools that require the use of a syringe-like device (e.g., the contrast syringe, venogram, balloon) are plugged into the labeled panel on the back of the simulator.

To connect the syringe-like tools to the simulator, located the designated port for the specific device (balloon, venogram or contrast) and connect the plug at the end of the tubing to the port.



*The Syringe Panel*

## Step 4: Connect the Instrumented Tools

The instrumented tools refer to the special tools used for different procedures.



*The Instrumented Tools Panel*

To connect the instrumented tools to the simulator:

- a. Located the cable attached to the instrument
- b. Select one of the outlets labeled with a letter under the RJ 12 label
- c. Connect the cable to the outlet

## Step 5: Connect the Foot Pedals

The Fluoro and Cine foot pedals control the x-ray activation and the video capture during the simulated procedure, respectively.

To connect the foot pedals:

- a. Place the foot pedals on the ground



*The Foot Pedals*

- b. Locate the plug at the end of the foot pedal cable
- c. Connect the plug to one of the ports labeled A or B under the Foot Pedals label



*The Foot Pedals Ports*

## Step 6: Connect the Simulator to the Computer

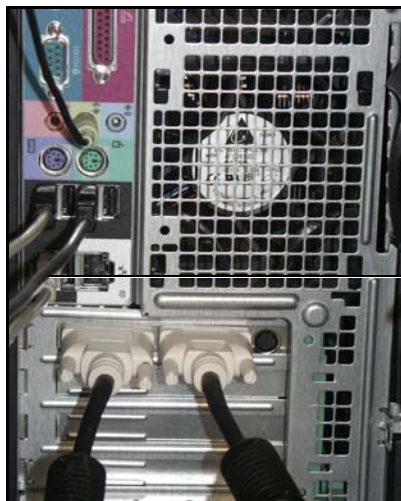
To connect the simulator to the computer:

- a. Locate the white USB cable with USB connectors on both ends
- b. Connect one end of the cable into one of the **USB A** ports on the back of the simulator



*The Power Panel*

- c. Connect the other end of the cable into a USB port on the back of the computer



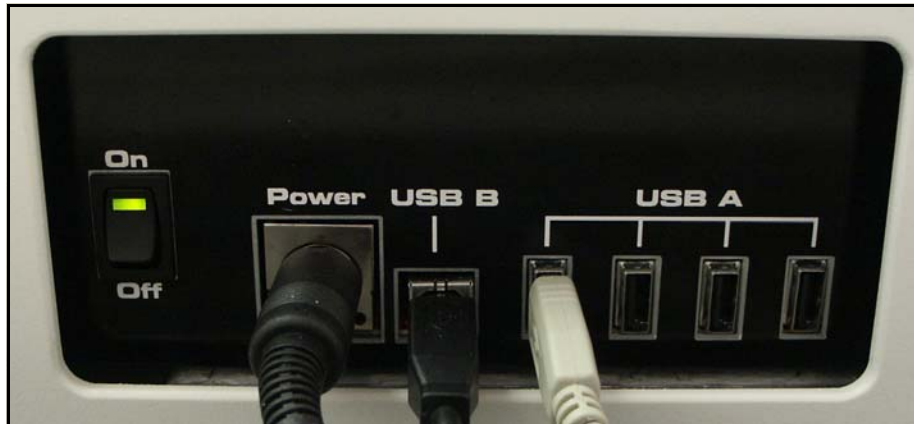
*The Back of the Computer*

**Note:** Connect to the USB 2.0 port only. Connecting to a USB 3.0 port can cause an error in the software where the **Start Simulation** button becomes grayed out when switching between the administrator account and a user account.

## Step 7: Connect the Power Cable to the Simulator

To connect the power cable to the simulator:

- a. Locate the power cable in the shipment
- b. Connect the female end of the cable to the Power port on the back of the simulator

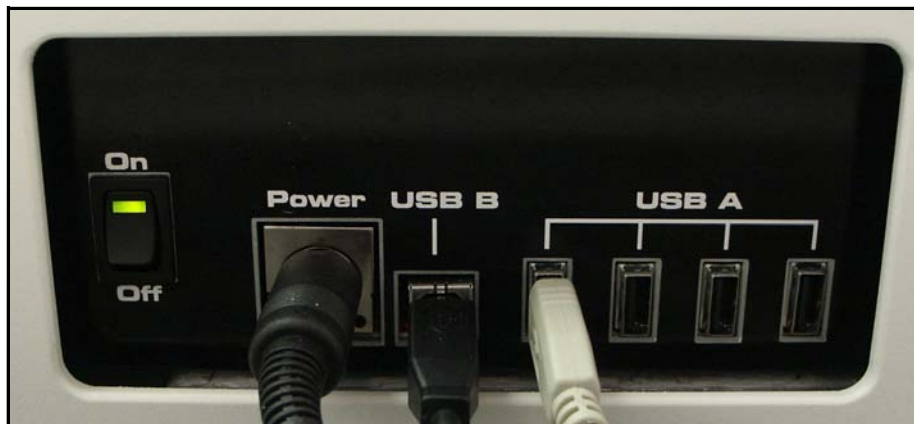


*The Power Panel*

- c. Connect the pronged end of the cable to the power strip located near the back of the computer inside the cart

## Step 8: Power On the Simulator

To power on the simulator, press the Power switch to the **On** position. A green light will illuminate.



*The Power Panel*

# CathLabVR Computer Setup

CathLabVR Computer Setup	
1	Connect the Keyboard and Mouse Cables
2	Connect the Monitor Cables
3	Connect the Speaker Plug
4	Power On the Computer
5	Power On the Monitors

## Step 1: Connect the Keyboard and Mouse Cables

To connect the keyboard and mouse cables, locate two available USB ports on the back of the computer and insert each of the USB cables into a port.



*The Back of the Computer*

## Step 2: Connect the Monitor Cables

To connect the monitor cables, locate the end of each cable and connect each one into a DVI port on the back of the computer.



*The Back of the Computer*

## Step 3: Connect the Speaker Plug

To connect the speaker plug, insert the plug into the designated speaker port on the back of the computer.

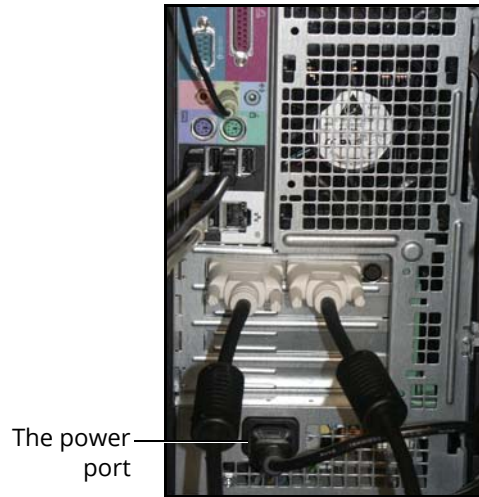


*The Back of the Computer*

## Step 4: Power On the Computer

To power on the computer:

- a. Ensure the computer is connected to the power strip located inside the cart  
If the computer power cable is not connected:
  - Connect the female end of the power cable to the back of the computer



*The Back of the Computer*

- Connect the pronged end into the power strip
- b. Press the **Power** button located on the front of the computer

## Step 5: Power On the Monitors

**Note:** The monitor power buttons should be shipped in the **On** position. If the light at the bottom of the monitor does not illuminate upon starting the computer, follow the instructions below.

To power on the monitors, press the center power button located on the front of the monitors.



*The Front of the Monitor*





# USING THE ADMINISTRATOR TOOLS

Administrators managing the CathLabVR simulator are responsible for setting up user accounts, privileges and curriculum. Additionally, the administrator has the ability to change network settings, scope button assignments and simulation parameters, set up emails, generate and print reports and import and export system data.

**Note:** For optimal use, no other software programs should be open while the simulator software is running.

**Note:** To use the printing functions in the software, a network connection must be established.

## Starting the Software

Once the CathLabVR simulator is powered on, the software launches automatically and the Login screen appears.

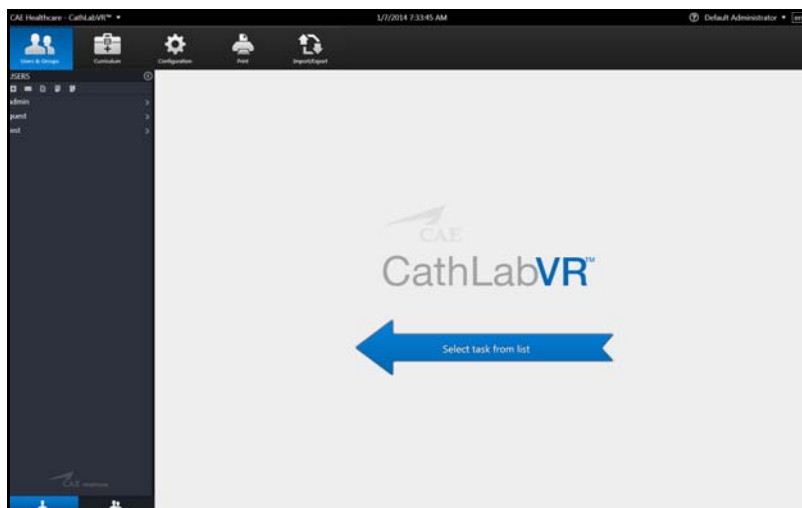


**The Login Screen**

To log in to the software:

1. Enter the assigned username in the **Username** field. The default username for a new administrator is *admin*
2. Enter the assigned password in the **Password** field. The default password for a new administrator is *admin*
3. Click **Login**

The administrator Home screen appears, indicating the administrator is logged in.

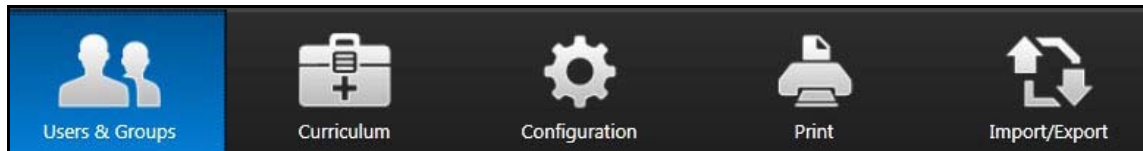


**The Administrator Home Screen**

From the administrator Home screen, administrators can navigate to the screens required for editing user and group accounts, assigning curriculum, adjusting configurations and printing, importing and exporting user data.

## Interface Overview

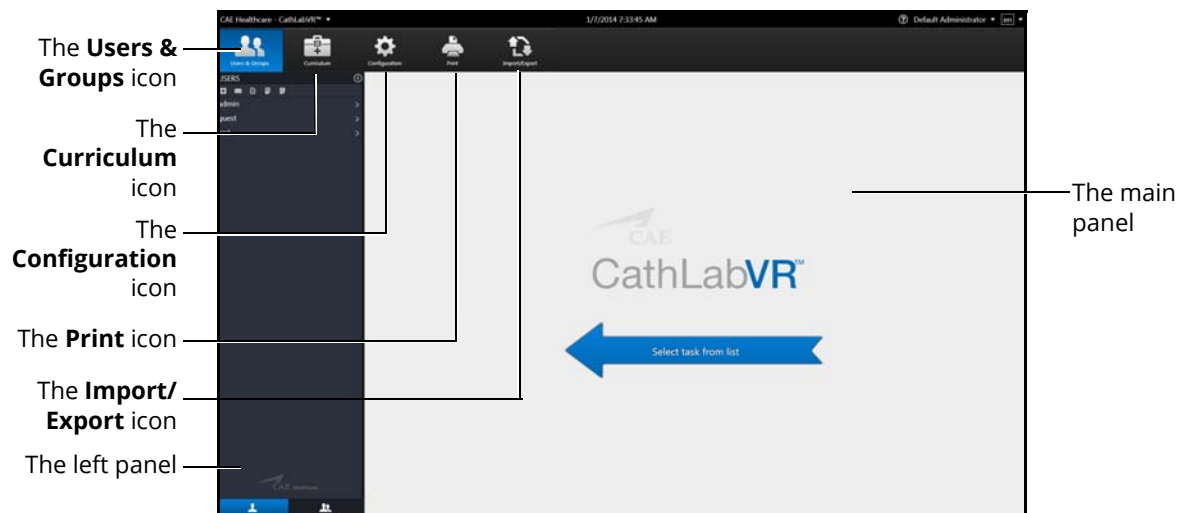
The CathLabVR administrator interface contains a dashboard of icons located near the top of the screen that represents the screens available for administrators to perform various tasks and functions.



*The Icon Dashboard*

When an icon is selected, the associated content will appear in the main panel of the interface and the left panel contains a list of options for administrators.

The **Users & Groups** icon is selected by default and referred to as the Home screen when users first login to the software.



*The Administrator Home Screen*

## Users & Groups

From the Users & Groups screen, administrators can create user accounts, assign privileges, courses and tasks to individual users and assign users, courses and tasks to groups. Administrators can also deactivate user accounts and set up and send out automated emails containing user account information.

## Curriculum

From the Curriculum screen, administrators can assign courses and tasks to individual users and assign courses, tasks and users to groups. Administrators can also upload faculty content to appear in the didactic content of a simulation, as well as create new tasks and courses.

### Configuration

From the Configuration screen, administrators can adjust network settings, test and calibrate hardware, restore or backup the database, and adjust volume and language preferences.

### Print

From the Print screen, administrators can print user account information, usage summaries and reports for individual users and groups.

### Import/Export

From the Import/Export screen, administrators can import users and export user lists and results.

## Creating Users and Groups

Administrators are responsible for creating and managing users and groups in the CathLabVR system. Only users with administrative privileges can create new users and groups.

## Creating Users

To create a user:

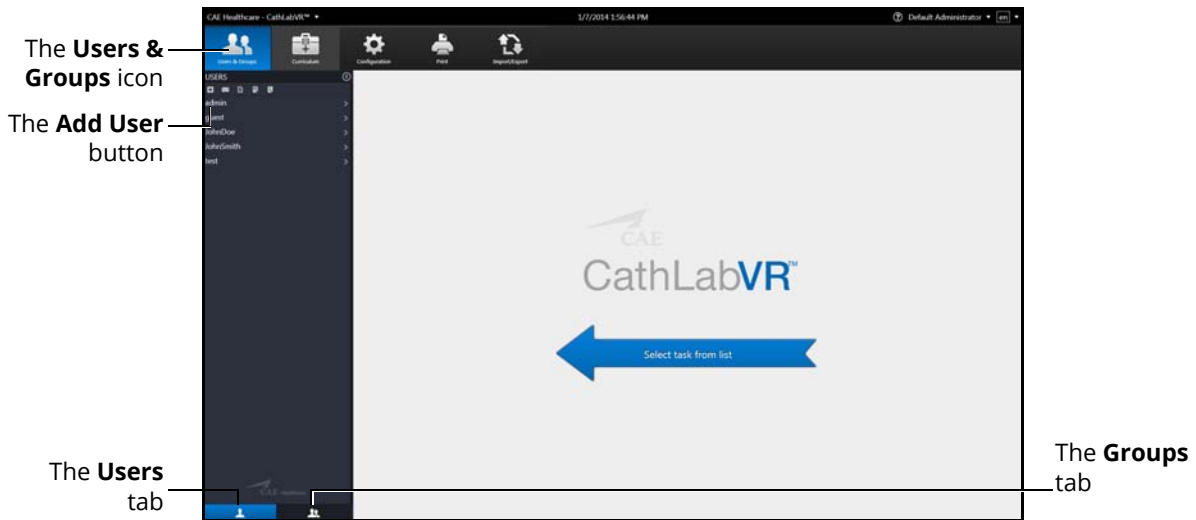
1. From the icon dashboard, click the **Users & Groups** icon



**The Users & Groups Icon**

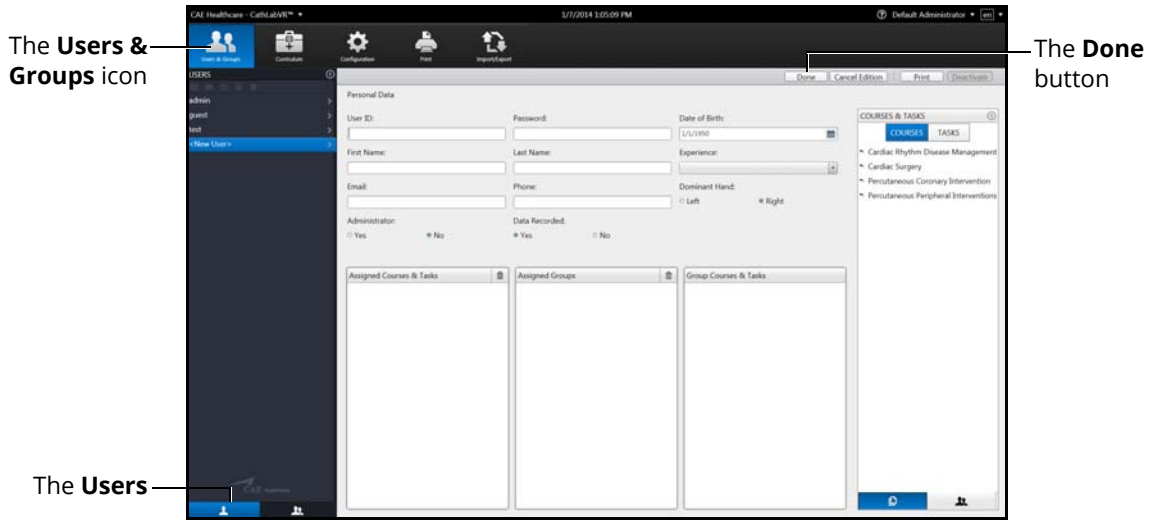
The Users & Groups screen appears.

2. From the Users and Groups screen on the **Users** tab, click the **Add User** button



**The Users & Groups Screen**

The Personal Data screen appears.



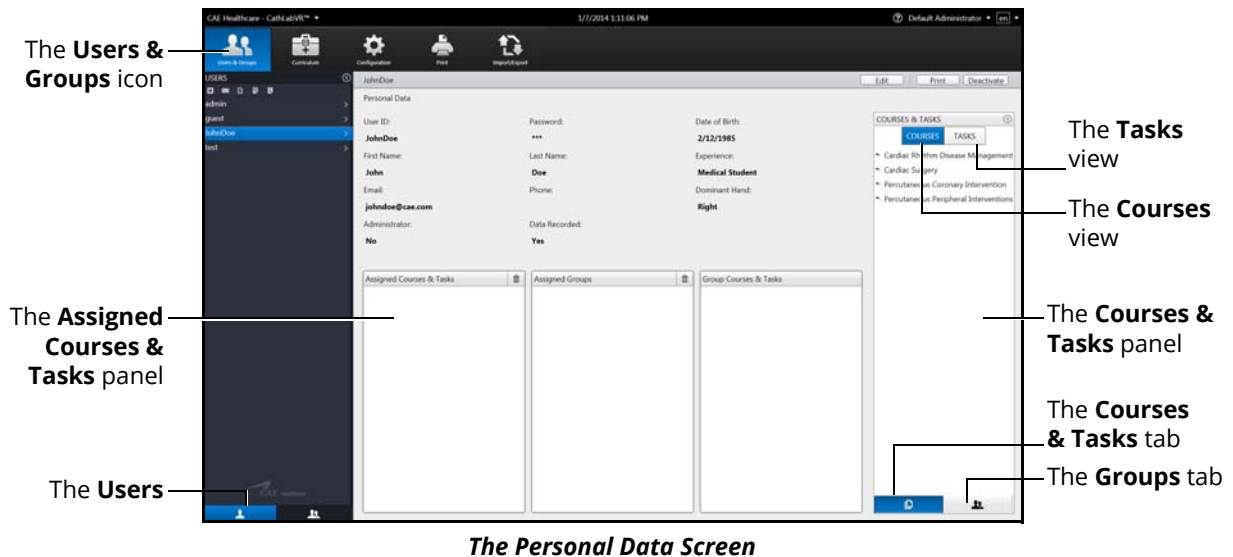
*The Personal Data Screen*

3. Enter the information for the specific user in the different fields
4. Click **Done**

## Assigning Courses to a User Account

To assign a course to a user from the Personal Data screen:

1. Select the user from the **Users** panel on the Users and Groups screen. The Personal Data screen appears



*The Personal Data Screen*

2. Click on the **Courses & Tasks** tab in the **Courses & Tasks** panel
3. Click on the **Courses** view and select the desired course in the **Courses & Tasks** panel
4. Hold down the left mouse button and drag the course from the **Courses & Tasks** panel to the **Assigned Courses & Tasks** panel

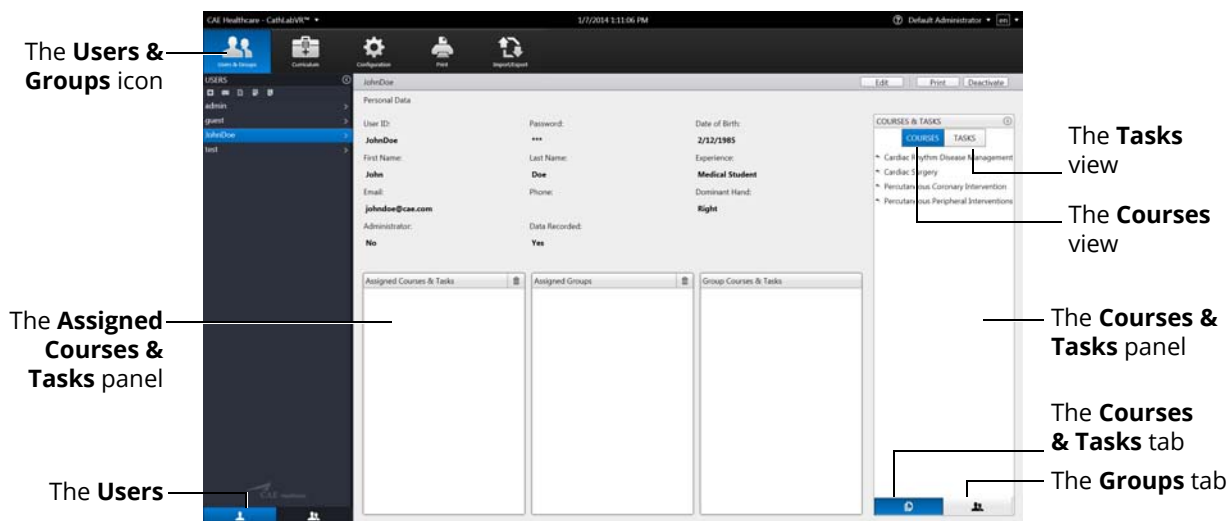
Once the button is released, the course appears in the assigned curriculum for the user.



## Assigning Tasks to a User Account

To assign a task to a user from the Personal Data screen:

1. Select the user from the **Users** panel on the Users and Groups screen
2. The Personal Data screen appears



*The Personal Data Screen*

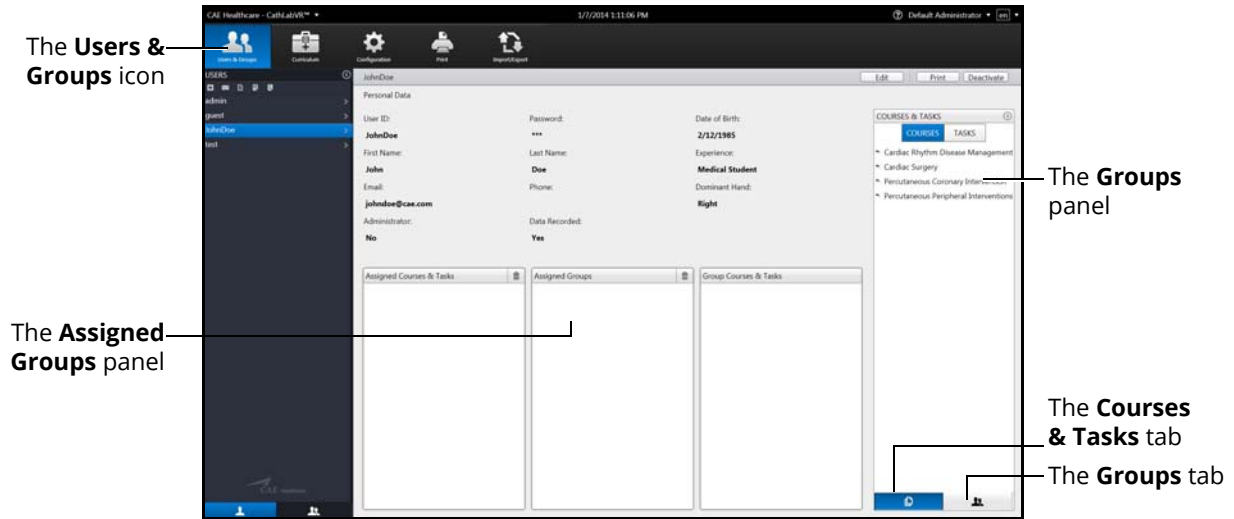
3. Click on the **Courses & Tasks** tab in the **Courses & Tasks** panel
4. Click on the **Tasks** view and select the desired course in the **Courses & Tasks** panel
5. Hold down the left mouse button and drag the course from the **Courses & Tasks** panel to the **Assigned Courses & Tasks** panel

Once the button is released, the task appears in the assigned curriculum for the user.

## Assigning a User to a Group

To assign a user to a group from the Personal Data screen:

1. Select the user from the **Users** panel on the Users and Groups screen



*The Personal Data Screen*

2. Click on the **Groups** tab in the **Groups** panel
3. Select the desired group in the **Groups** panel
4. Hold down the left mouse button and drag the group from the **Groups** panel to the **Assigned Groups** panel

Once the button is released, the group appears in the assigned groups for the user.

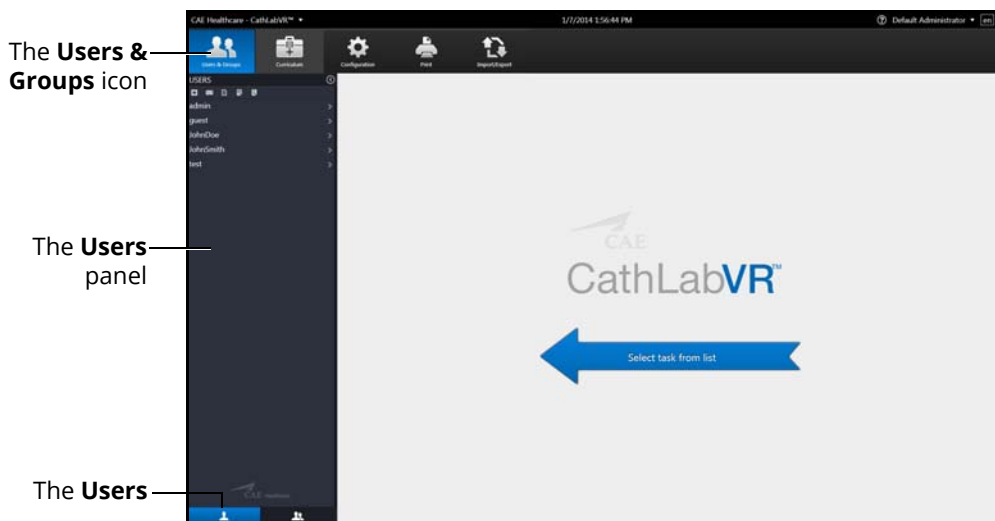
## Editing User Information

To edit a current user's information:

1. From the icon dashboard, click the **Users & Groups** icon



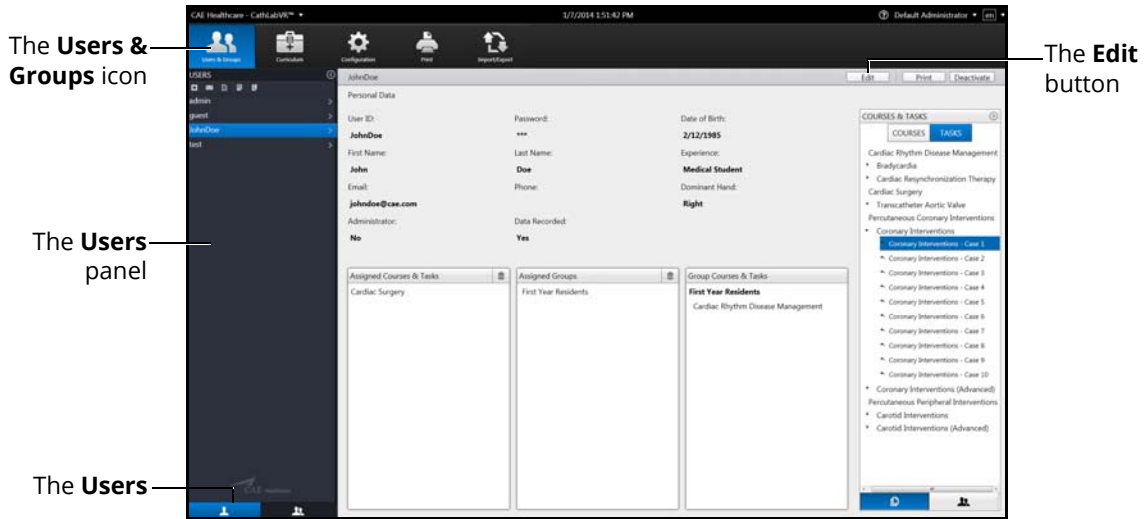
*The Users & Groups Icon*



*The Users & Groups Screen*

2. From the Users and Groups screen, click the **Users** tab
3. Select the desired user from the **Users** panel

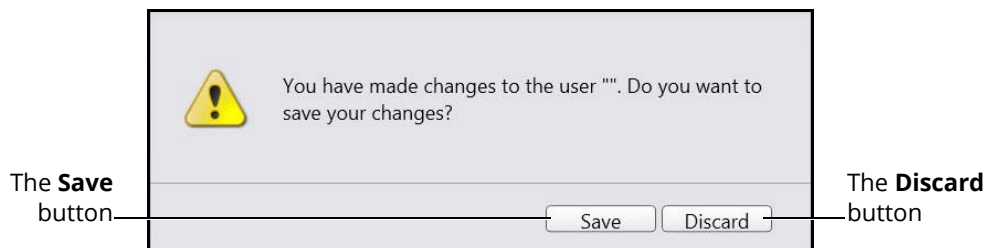
The Personal Data screen appears.



**The Personal Data Screen**

4. Click **Edit**
5. Change the desired information for the specific user in the different fields
6. Click **Done**

**Note:** If the user navigates away from the Personal Data screen before clicking **Done** to save the information, the **Unsaved Personal Data** message will appear.



**The Unsaved Personal Data Message**

To save the changes, click **Save**.

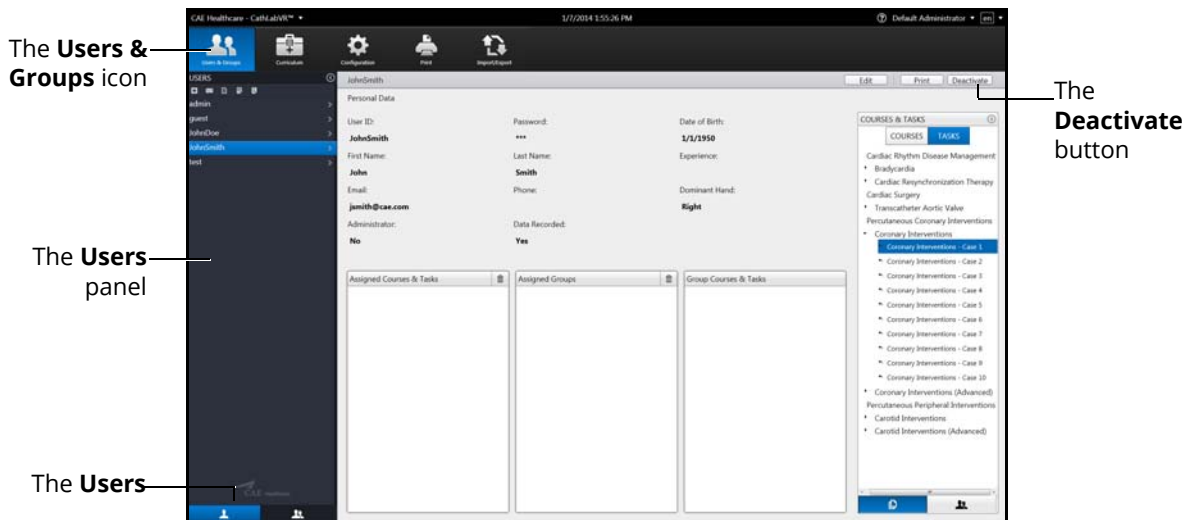
To discard the changes, click **Discard**.

## Deactivating Users

If a learner is no longer attending training or their account is no longer active, the administrator can deactivate the user.

To deactivate a user:

1. From the Users and Groups screen, click the **Users** tab
2. Select the desired user



*The Inactive Users Personal Data Screen*

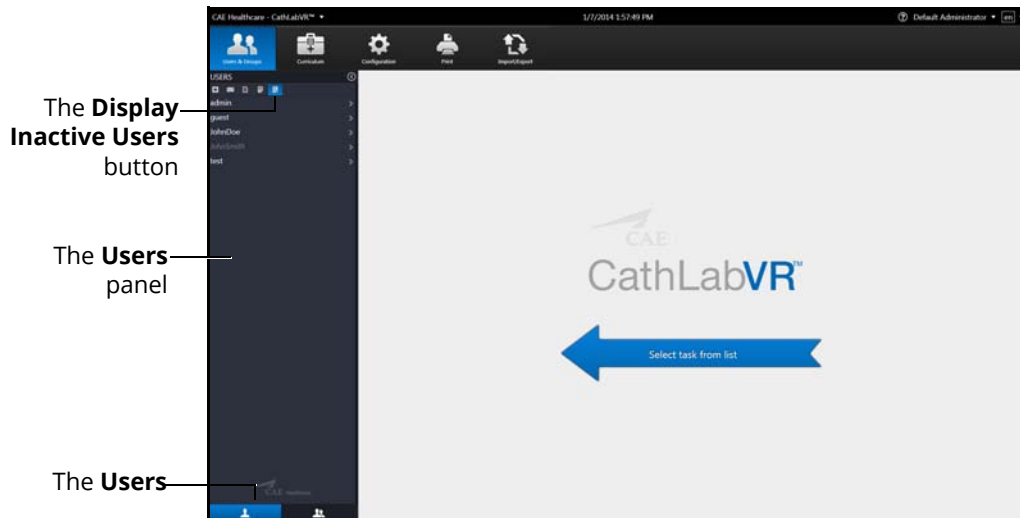
3. Click **Deactivate**

## Activating Users

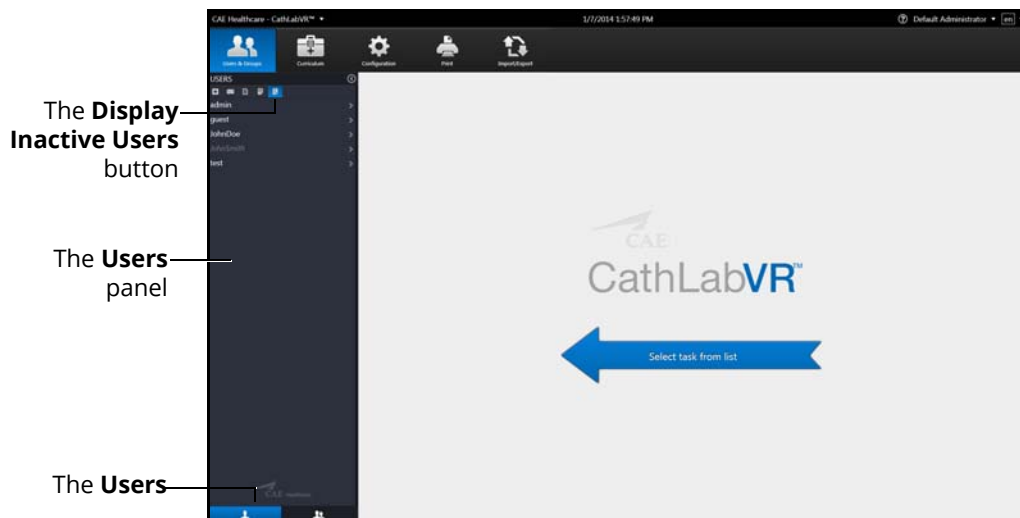
Upon creating and saving a user, the administrator activates the user. If a user has been deactivated by an administrator, the user can also be reactivated by the administrator.

To activate a currently inactive user:

1. From the Users and Groups screen, click the **Users** tab
2. Click the **Display Inactive Users** button

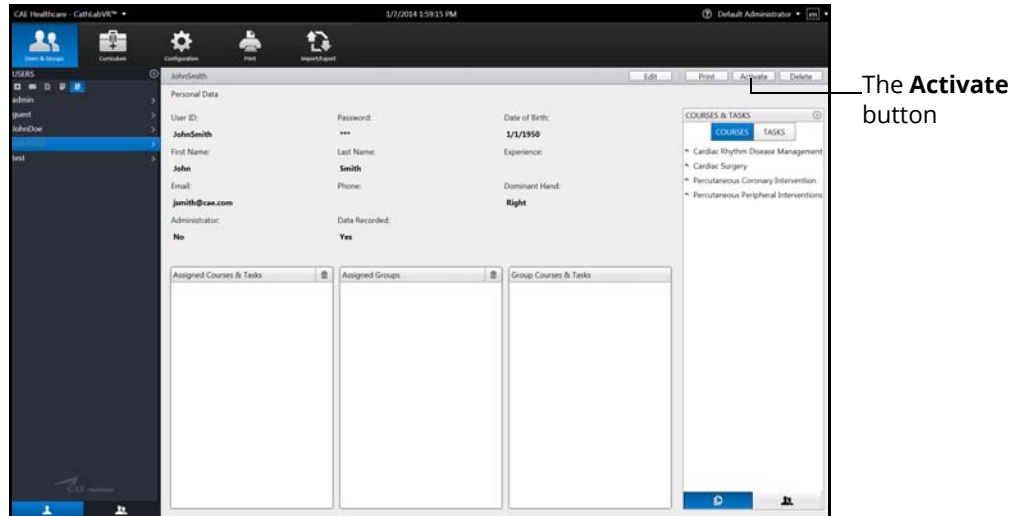


*The Users and Groups Screen*



*The Users and Groups Screen*

3. Select the desired deactivated user. The user's information appears in the personal data screen



*The Inactive Users Personal Data Screen*

4. Click **Activate**

## Creating Groups

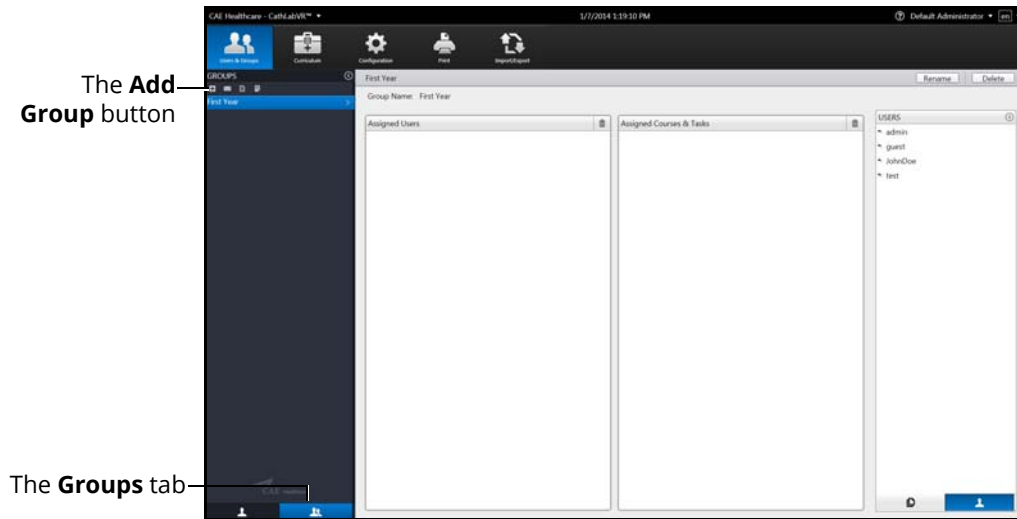
To create a group:

1. From the icon dashboard, click the **Users & Groups** icon



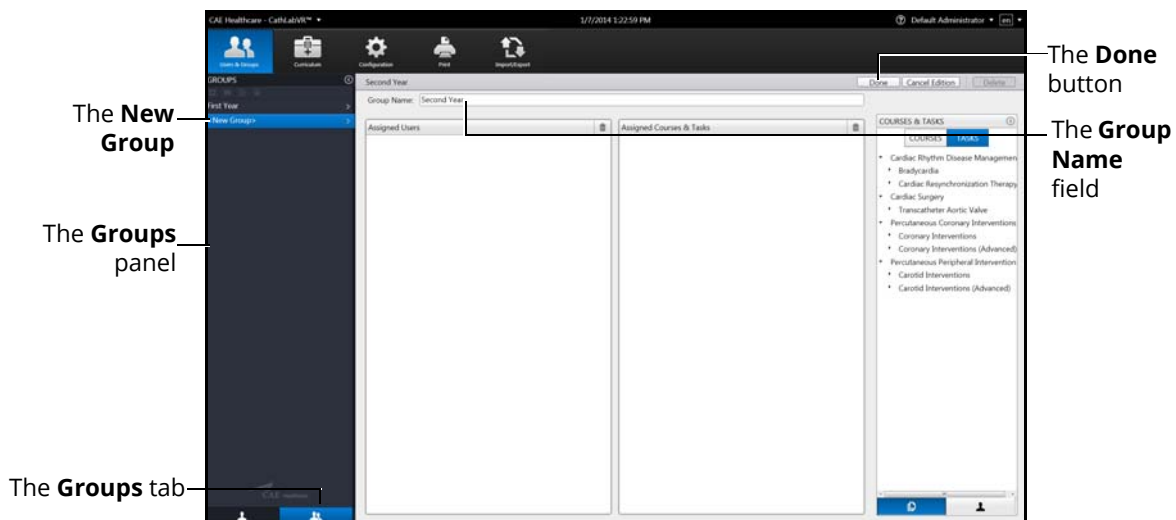
*The Users & Groups Icon*

2. From the Users and Groups screen, click the **Groups** tab



*The Users & Groups Screen - Groups Tab*

3. Click the **Add Group** button



*The Edit Group Screen*

4. Enter the desired group name in the **Group Name** field

5. Click **Done** to save the group



## Modifying Groups

Administrators can modify the group name, assigned curriculum and assigned users.

To modify a group name:

1. From the Users and Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel. The group information screen appears
3. Click **Rename**
4. Enter the new group name in the **Group Name** field
5. Click **Done**

## Deleting a Group

To delete a group, click the **Delete** button on the group information screen.

## Adding a Course to the Group Curriculum

To add a course to the group curriculum:

1. From the Users & Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel
3. From the Group Information screen, click the **Courses & Tasks** tab in the **Courses & Tasks** panel
4. Click on the **Courses** view and select the desired course in the **Courses & Tasks** panel.
5. Hold down the left mouse button and drag the course from the **Courses & Tasks** panel to the **Assigned Courses & Tasks** panel

Once the button is released, the course appears in the assigned curriculum for the group.

## Deleting a Course from the Group Curriculum

To delete a course from the group curriculum:

1. From the Users & Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel
3. From the **Assigned Courses & Tasks** panel, select the desired course
4. Click the trash can icon button in the upper right corner of the **Assigned Courses & Tasks** panel

## Adding a Task to the Group Curriculum

To add a task to the group curriculum:

1. From the Users & Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel
3. From the group information screen, click on the **Courses & Tasks** tab in the **Courses & Tasks** panel
4. Click on the **Tasks** view and select the desired task in the **Courses & Tasks** panel
5. Hold down the left mouse button and drag the task from the **Courses & Tasks** panel to the **Assigned Courses & Tasks** panel

Once the button is released, the task appears in the assigned curriculum for the group.

## Deleting a Task from the Group Curriculum

To delete a task from the group curriculum:

1. From the Users & Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel
3. From the **Assigned Courses & Tasks** panel, select the desired task
4. Click the trash can icon button in the upper right corner of the **Assigned Courses & Tasks** panel

## Adding a User to a Group

To add an individual user to the group:

1. From the Users & Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel
3. From the group information screen, click on the **Users** tab in the **Users** panel
4. From the **Users** panel, select the desired user
5. Hold down the left mouse button and drag the user from the **Users** panel to the **Assigned Users** panel

Once the button is released, the user appears as an assigned user to the group.

## Deleting a User from the Group Curriculum

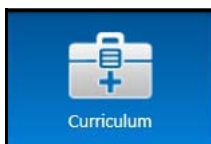
To delete a user from the group curriculum:

1. From the Users & Groups screen, click the **Groups** tab
2. Select a group from the **Groups** panel
3. From the **Assigned Users** panel, select the desired user
4. Click the trash can icon button in the upper right corner of the **Assigned Users** panel

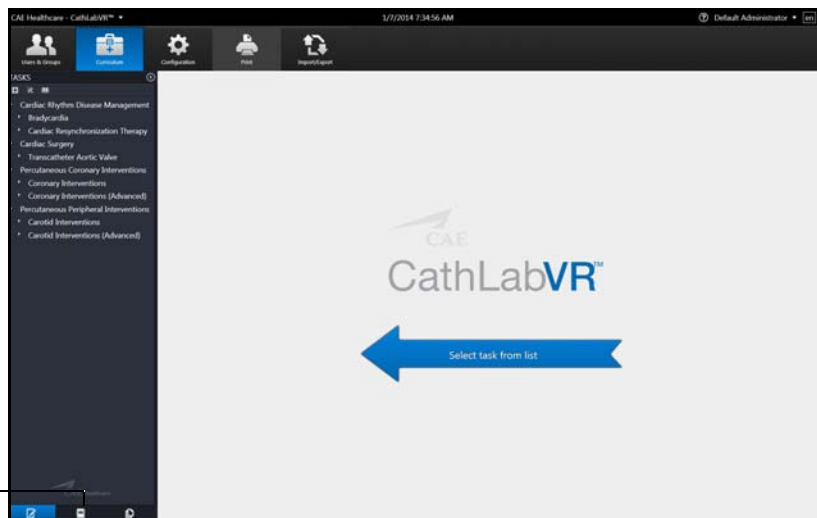
# Creating a Course

To create a course:

1. From the icon dashboard, click the **Curriculum** icon



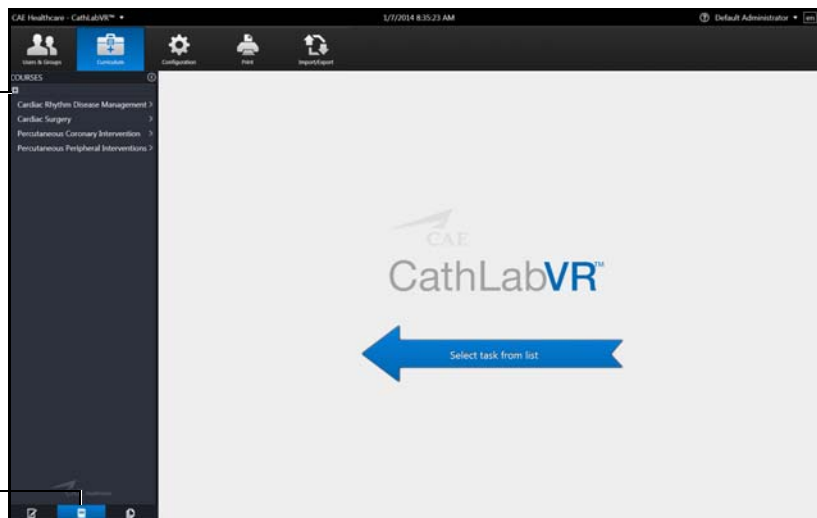
*The Curriculum Icon*



The **Courses** tab

*The Curriculum Screen*

2. From the Curriculum screen, click the **Courses** tab
3. Click the **Add Course** button



The **Add Course**

The **Courses** tab

*The Curriculum Screen*

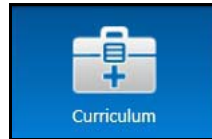
4. Enter the new course name in the **Course Name** field
5. Click **Done**

## Editing a Course

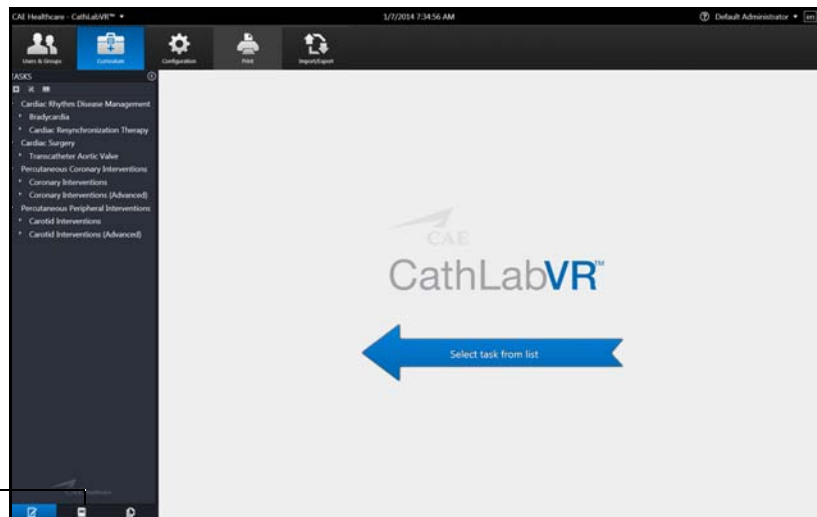
Administrators can modify the course name, assign groups, assign tasks and assign users.

To modify a course name:

1. From the icon dashboard, click the **Curriculum** icon



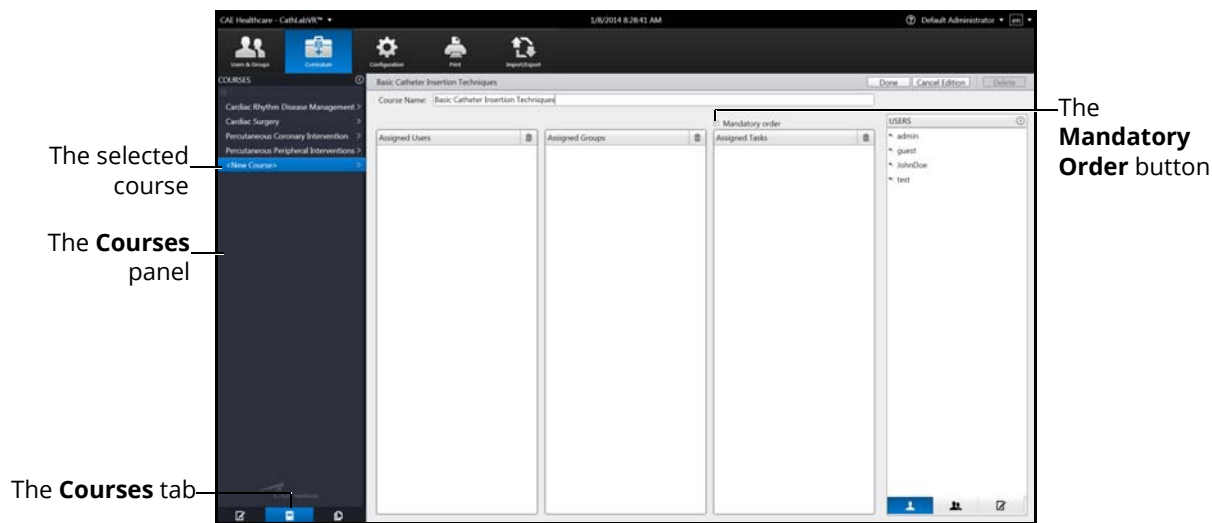
*The Curriculum Icon*



The **Courses** tab

*The Curriculum Screen*

2. From the Curriculum screen, click the **Courses** tab
3. Select a course from the **Courses** panel



*The Course Information Screen*

4. Enter the new course name in the **Course Name** field
5. Select the **Mandatory Order** checkbox to require assigned users to complete the tasks in the order specified for the course
6. Click **Done**

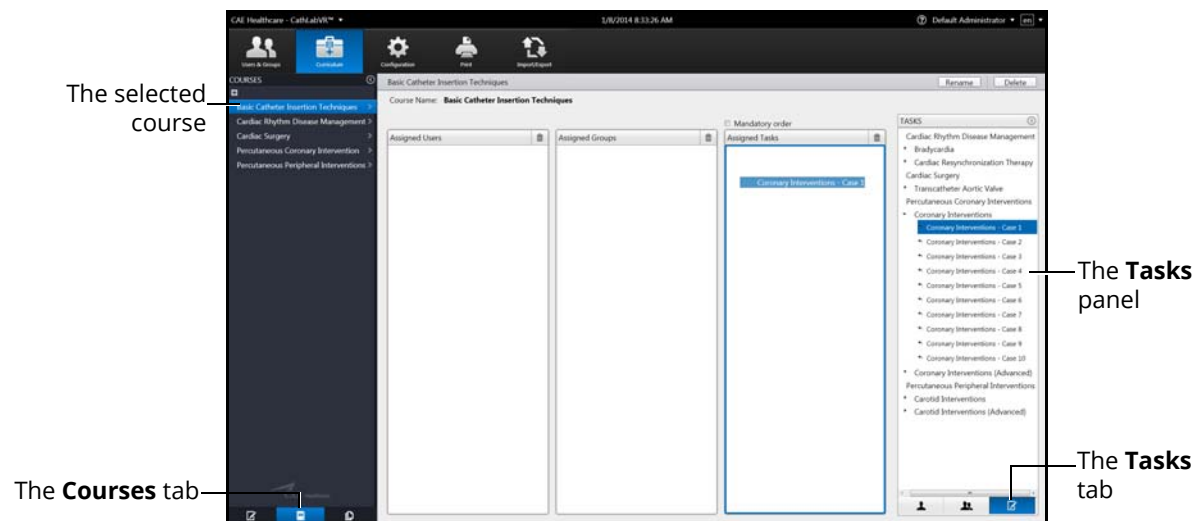
## Deleting a Course

To delete a group, click the **Delete** button on the Course Information screen.

## Assigning a Task to a Course

To assign a task to a course:

1. From the Curriculum screen, click the **Courses** tab
2. Select a course from the **Courses** panel
3. From the Course Information screen, click on the **Tasks** tab in the **Tasks** panel



*The Course Information Screen*

4. Select the desired course in the **Tasks** panel
  5. Hold down the left mouse button and drag the course from the **Tasks** panel to the **Assigned Tasks** panel
- Once the button is released, the task appears in the assigned curriculum for the course.

## Deleting a Task from a Course

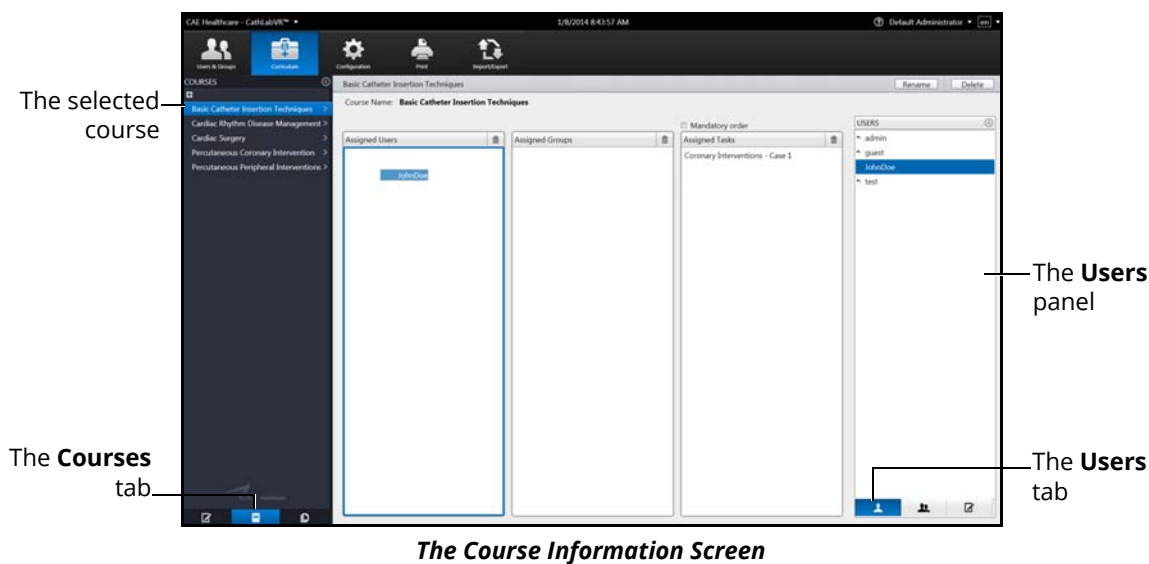
To delete a task from a course:

1. From the **Assigned Tasks** panel, select the desired task
2. Click the trash can icon button in the upper right corner of the **Assigned Tasks** panel

## Assigning a Group to a Course

To assign a user to a course:

1. From the Curriculum screen, click the **Courses** tab
2. Select a course from the **Courses** panel
3. From the Course Information screen, click on the **Users** tab in the Users panel



4. Select the desired user in the **Users** panel
  5. Hold down the left mouse button and drag the task from the Users panel to the **Assigned Users** panel
- Once the button is released, the task appears in the assigned curriculum for the course.

## Deleting a User from a Course

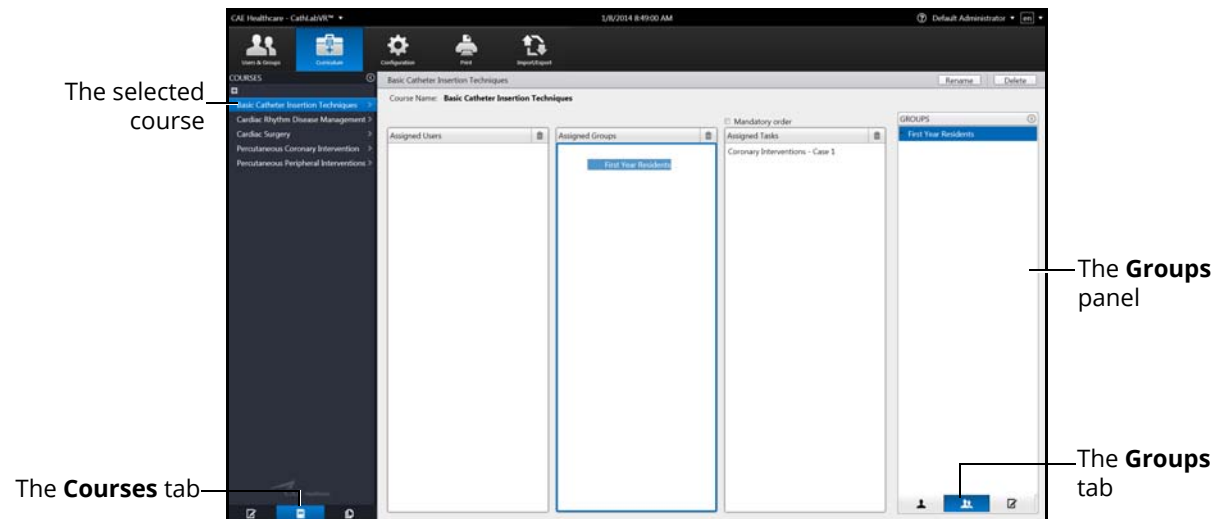
To delete a user from a course curriculum:

1. From the **Assigned Users** panel, select the desired user
2. Click the trash can icon button in the upper right corner of the **Assigned Users** panel

## Assigning a Group to a Course

To assign a group to a course:

1. From the Curriculum screen, click the **Courses** tab
2. Select a course from the **Courses** panel
3. From the Course Information screen, click on the **Groups** tab in the **Groups** panel



*The Course Information Screen*

4. From the **Groups** panel, select the desired group
5. Hold down the left mouse button and drag the group from the **Groups** panel to the **Assigned Groups** panel

Once the button is released, the group appears as an assigned group to the course.

## Deleting a Group from a Course

To delete a group from the course curriculum:

1. From the **Assigned Groups** panel, select the desired group
2. Click the trash can icon button in the upper right corner of the **Assigned Groups** panel



## Creating Tasks

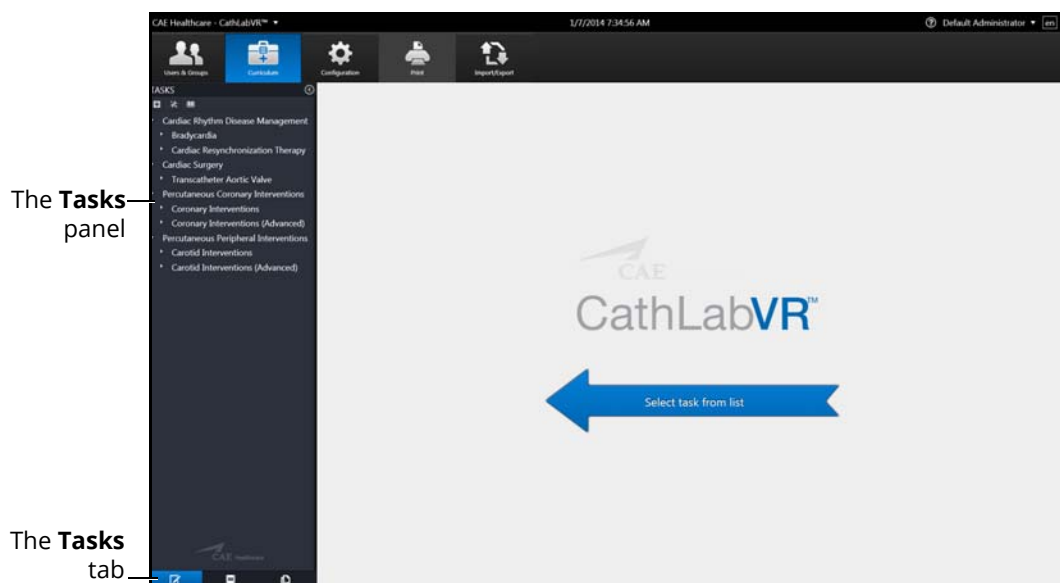
The simulator's module packages come with pre-programmed tasks for each type of procedure. Additionally, administrators can create custom tasks from the **Edited Tasks** tab or the **Task Templates** tab on the Curriculum screen. These tasks are known as administrator-created tasks.

To create a task from the **Edited Tasks** tab:

1. From the icon dashboard, click the **Curriculum** icon



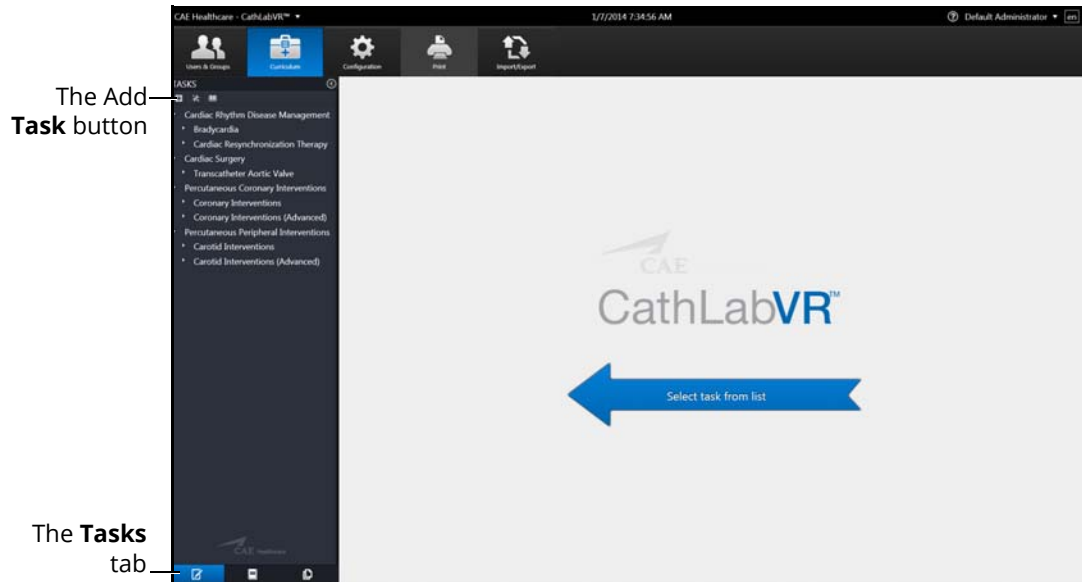
*The Curriculum Icon*



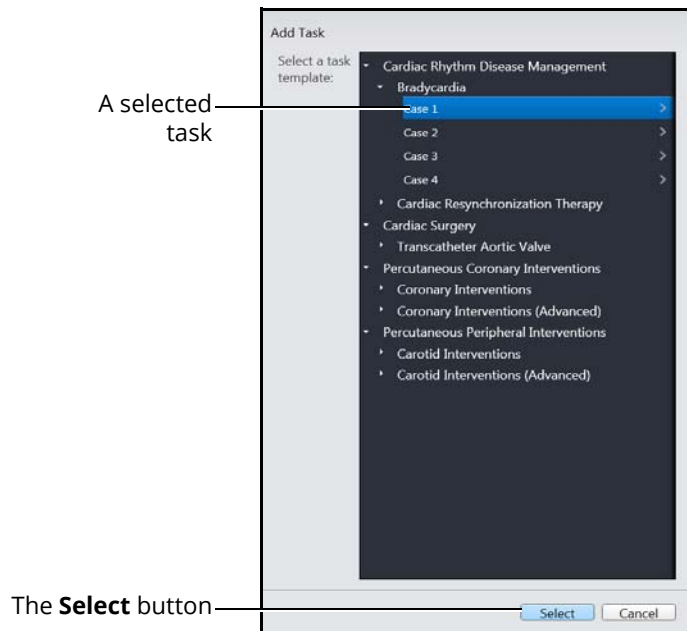
*The Curriculum Screen*

2. Click the **Tasks** tab

3. Click the **Add Task** button



*The Curriculum Screen*



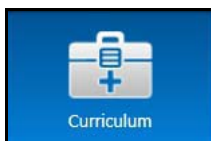
*The Curriculum Screen*

4. Select a task to add

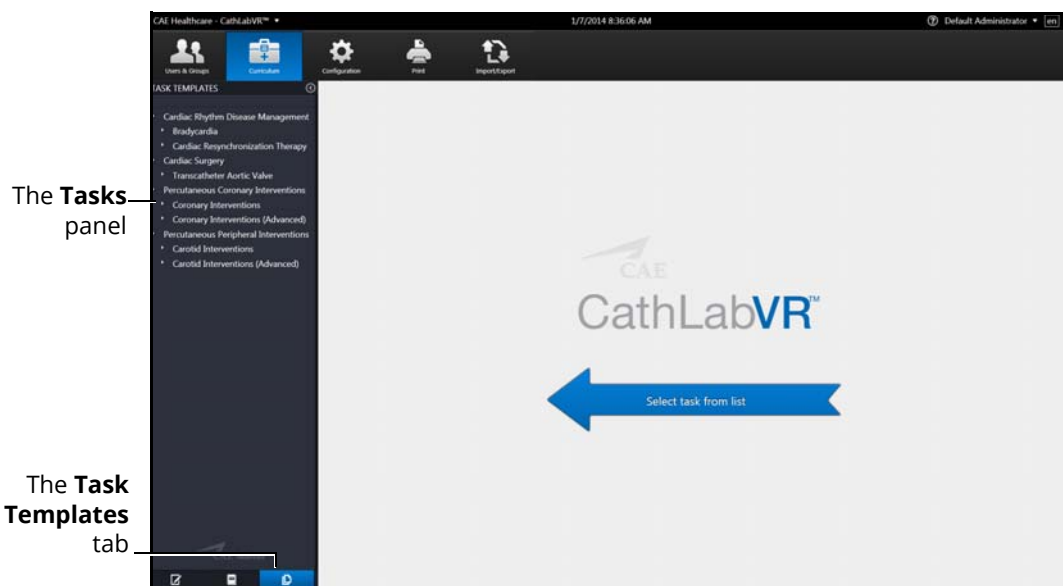
5. Click **Select**

To create a task from the **Task Templates** tab:

1. From the icon dashboard, click the **Curriculum** icon

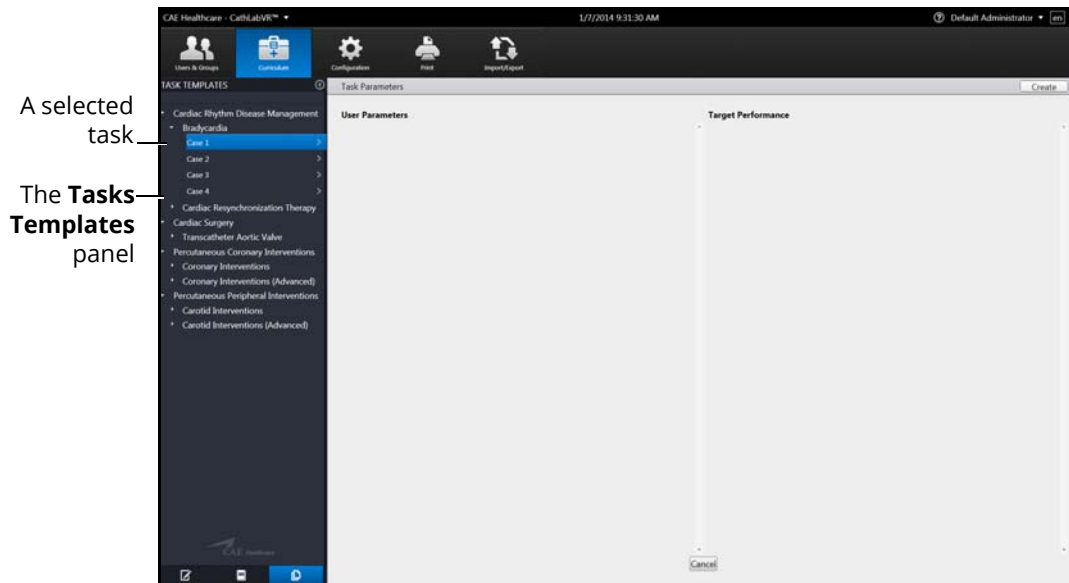


*The Curriculum Icon*



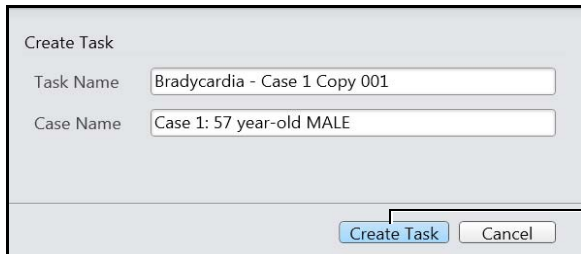
*The Curriculum Screen*

2. From the Curriculum screen, click the **Task Templates** tab



**The Curriculum Screen**

3. From the Task Template screen, select a task in the **Task Templates** panel
4. Click **Create**



The **Create Task** button

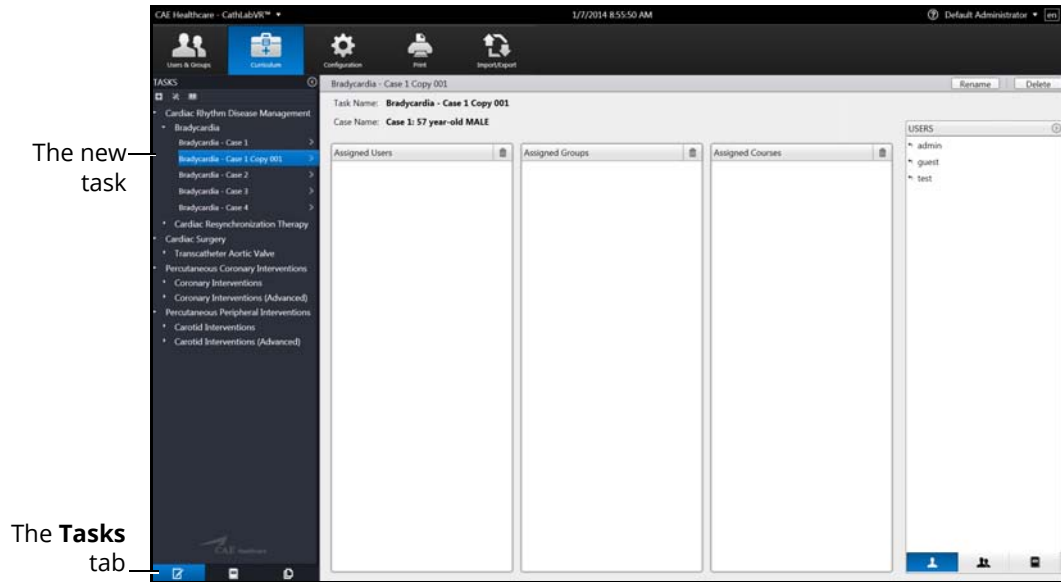
**The Create Task Box**

5. Enter the desired task and case name information for the new task
 

**Note:** New tasks that are not renamed upon creating a new task will appear with the original task template name and "Copy ####" in the **Task Templates** panel. The new task name can be edited at a later time in the **Tasks** tab after it is created.
6. Click **Create Task**

**Note:** The new task does not appear in the **Task Templates** panel.

7. From the Task Template screen, click the **Tasks** tab

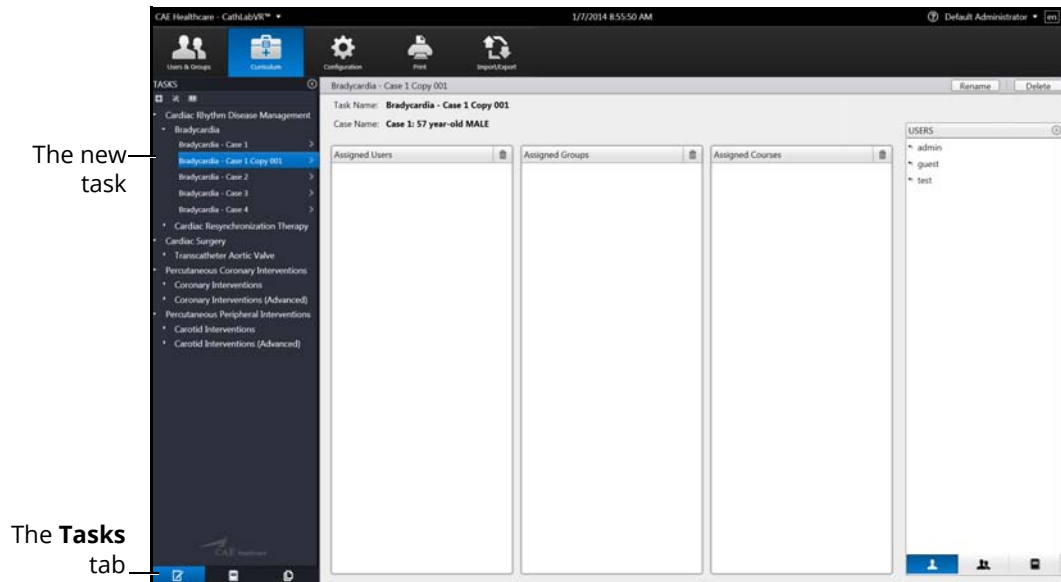


*The Curriculum Screen*

## Renaming a Task

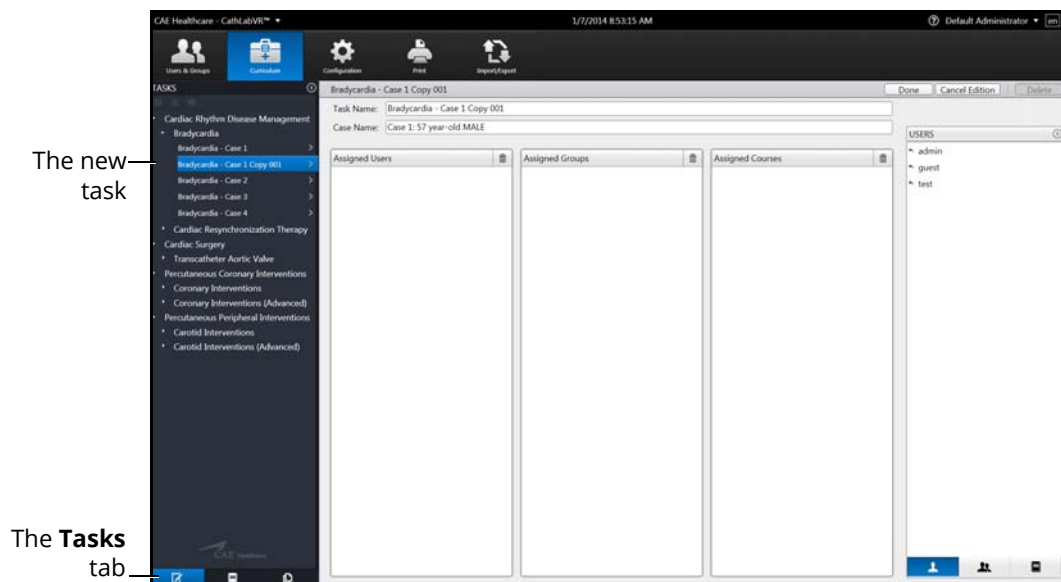
To rename a task:

1. From the **Tasks** panel, select the desired task



*The Curriculum Screen*

2. Click **Rename**



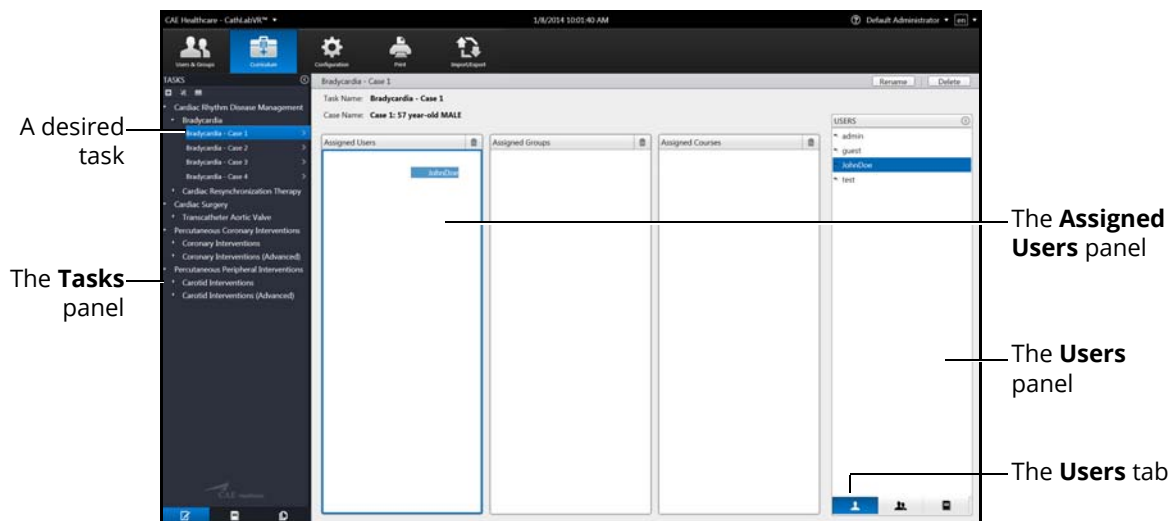
*The Curriculum Screen*

3. Enter the desired named for the new task in the **Task Name** text box
4. Enter the desired case name in the **Case Name** text box
5. Click **Done**

## Assigning a User to a Task

To assign a user to a task:

1. From the **Tasks** panel, select the desired task



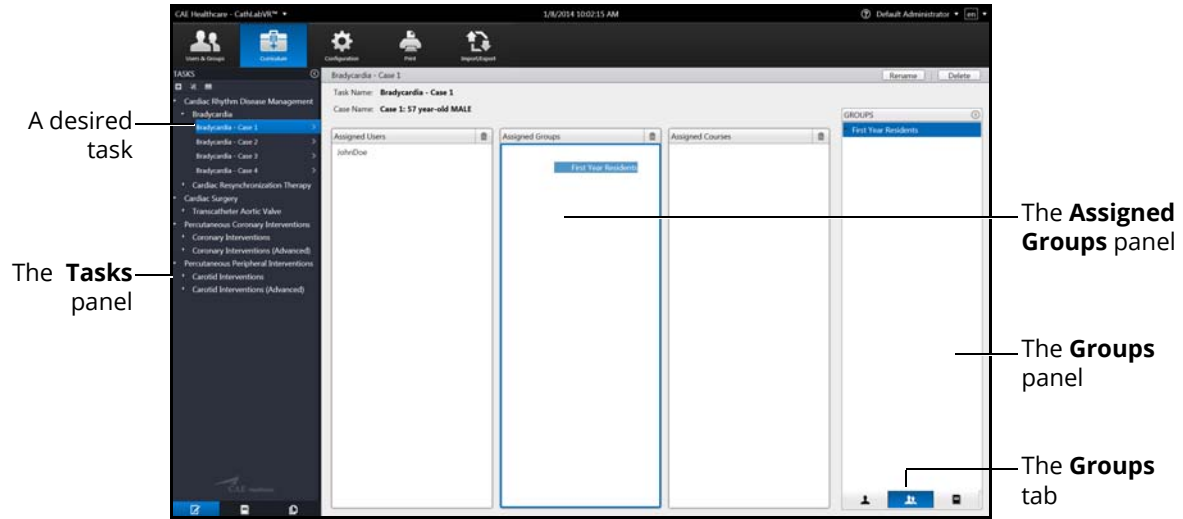
*The Tasks Screen*

2. From the Tasks screen, click the **Users** tab
3. Select the assigned user in the **Users** panel
4. Drag the user by holding down the left mouse button and navigating the cursor to the **Assigned Users** panel

## Assigning a Group to a Task

To assign a group to a task:

1. From the **Tasks** panel, select the desired task



*The Tasks Screen*

2. From the Tasks screen, click the **Groups** tab
3. Select the desired group in the **Groups** panel
4. Drag the group by holding down the left mouse button and navigating the cursor to the **Assigned Groups** panel

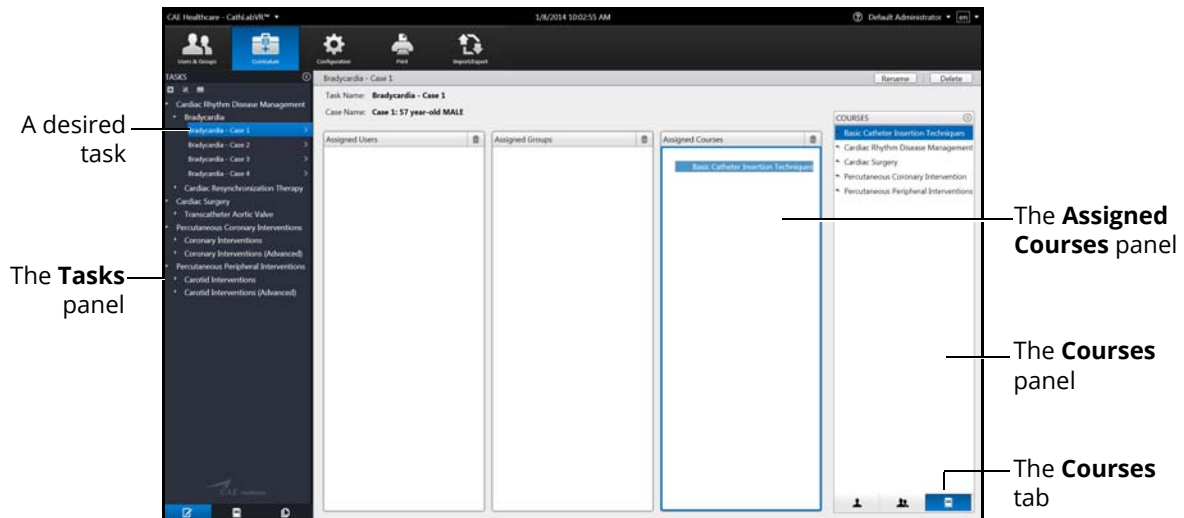


## Assigning a Course to a Task

**NOTE:** Tasks are assigned to courses automatically based on the task template used to create them. Administrators can modify these course assignments for administrator-created tasks.

To assign a course to a task:

1. From the **Tasks** panel, select the desired task



*The Tasks Screen*

2. Click the **Courses** tab
3. Select the desired course in the **Courses** panel
4. Drag the course by holding down the left mouse button and navigating the cursor to the **Assigned Courses** panel

## Deleting a Task

Administrators can delete tasks that are not pre-programmed in the modules (i.e., administrator-created tasks).

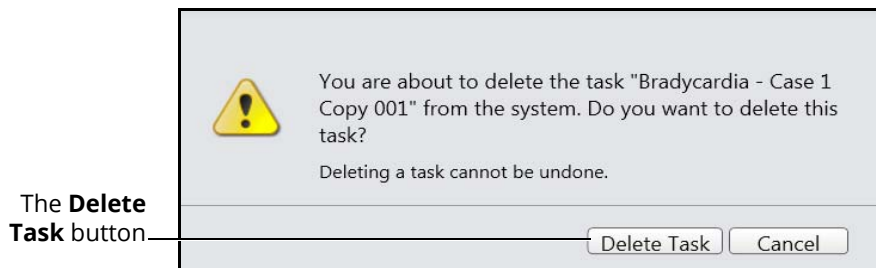
To delete a task:

1. From the **Tasks** panel, select the desired task



*The Tasks Screen*

2. Click **Delete**



*The Delete Task Message*

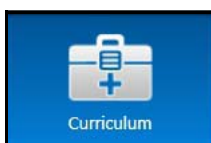
3. Click **Delete Task** to delete the task

# Adding Faculty Content

Administrators can upload content that will appear on a separate tab labeled **Faculty Content** within the didactic content options.

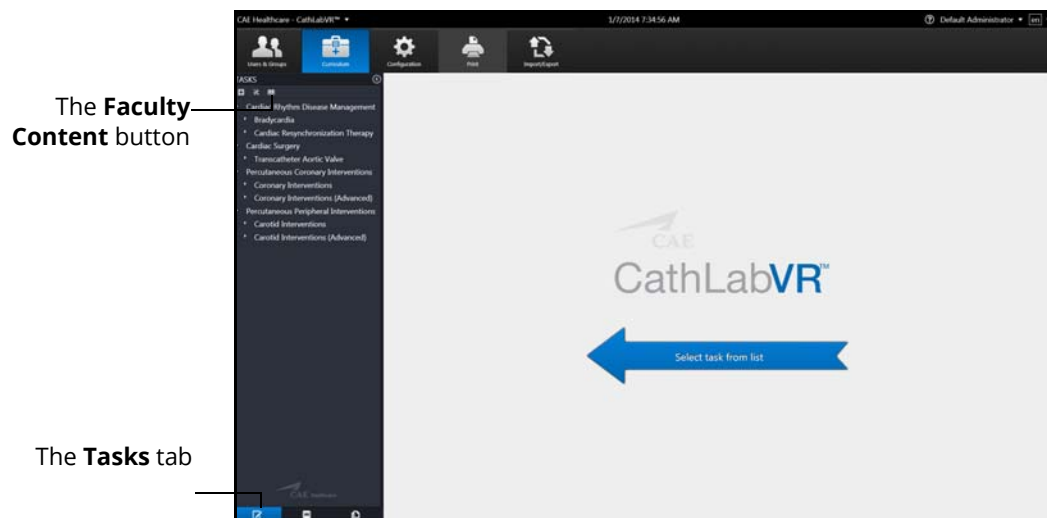
To upload documents for the **Faculty Content** tab:

1. From the icon dashboard, click the **Curriculum** icon



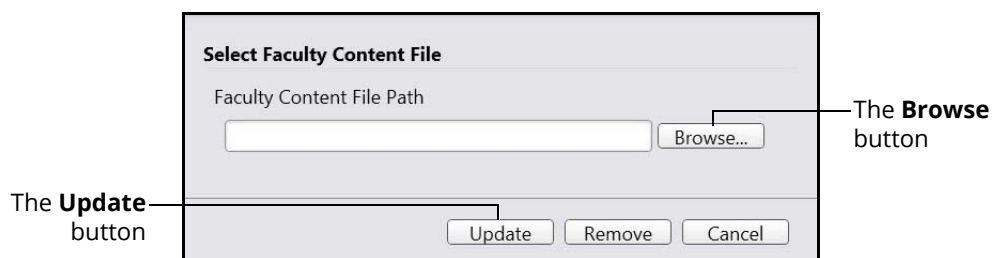
*The Curriculum Icon*

1. From the Curriculum screen, on the **Tasks** tab, select the desired task associate the content



*The Curriculum Screen*

2. Click the **Faculty Content** button



*The Select Faculty Content File Dialog Box*

3. Click **Browse**

**Note:** If the file is located on an external device, use the USB port located on the back of the simulator to connect the external device to the simulator.

4. Select the .htm or .html file to be uploaded
5. From the **Select File** dialog box, click **Open**
6. From the **Select Faculty Content File** dialog box, click **Update**

When users access the task, the **Faculty Content** tab appears and the content from the chosen file populates the screen.

## Emailing Users and Groups

Administrators have the ability to coordinate automated email correspondence with individual users and groups. Administrators can customize email settings to include content such as user profiles, reports and usage summaries, provide a return email address and set up a recurring auto update.

Once the emails settings are customized, the administrator can send the email immediately or save the email to send at a later time.

**Note:** To send emails from the simulator, a network connection is required and the administrator must configure the SMTP network information in the simulator.

## Emailing Users

Administrators can send emails containing user profiles, usage summaries and reports to individual users.

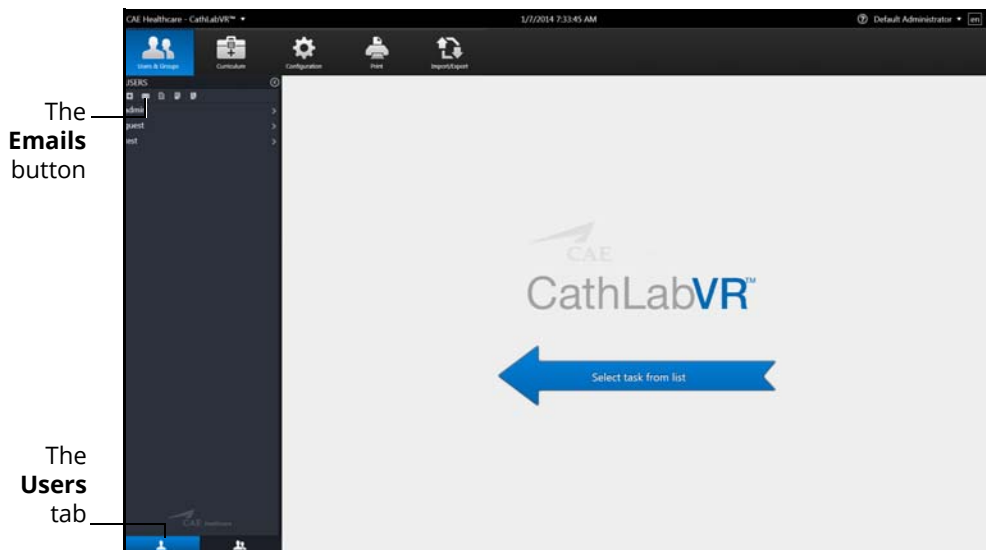
To send an email to an individual user:

1. From the icon dashboard, click the **Users & Groups** icon



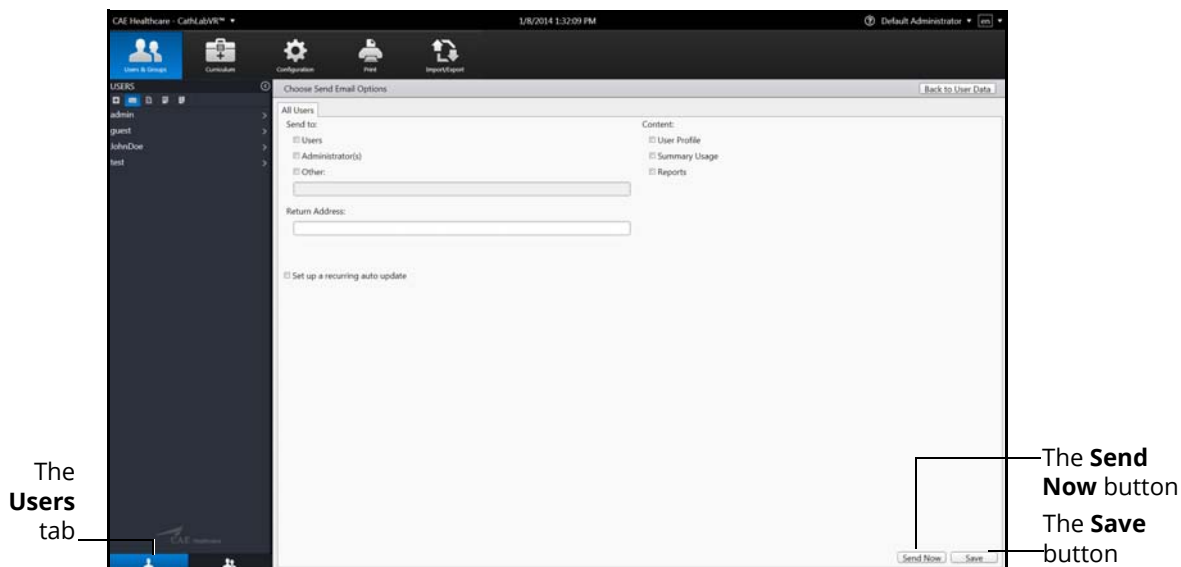
*The Users & Groups Icon*

- From the Users and Groups screen, on the **Users** tab, click the **Emails** button



**The Users & Groups Screen**

The Email Options screen appears.



**The Email Options Screen**

**Note:** If a user is selected from the **Users** panel, the Email Options screen displays a tab specifically for the user. Otherwise, the **All Users** tab displays.

- Select the recipients for the email
- Select the content for the email. Content options include **User Profile**, **Summary Usage** and **Reports**
- Enter a return email address in the **Return Address** text box, if desired
- Select the **Set a recurring auto update** checkbox, if desired
- Click **Send Now** to send the email immediately

**Note:** Email settings can be customized and saved to send at a later time. To save an email to send later, click **Save**.

## Emailing Groups

Administrators can send emails containing user profiles, usage summaries and reports to groups.

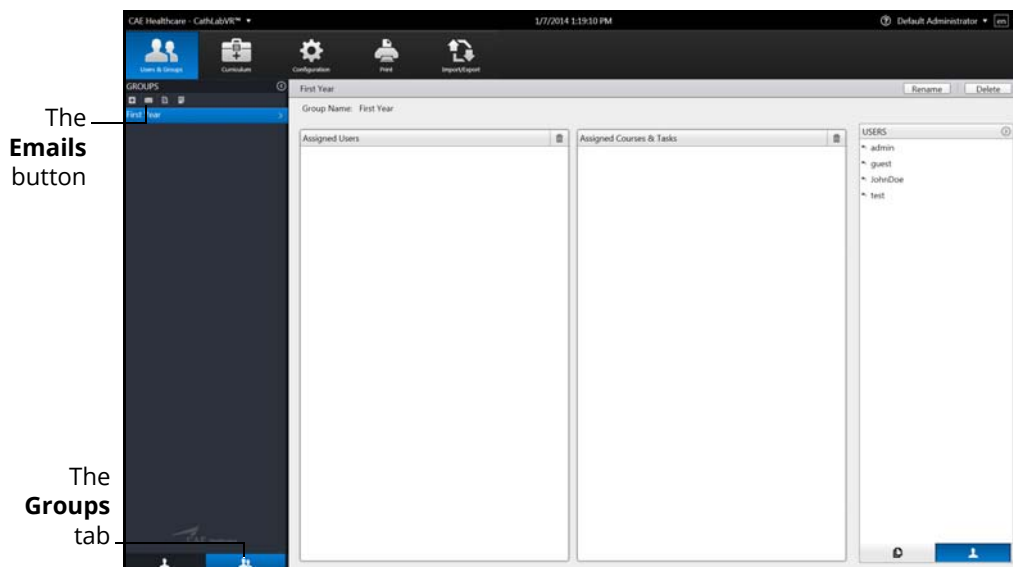
To send an email to a group:

1. From the icon dashboard, click the **Users & Groups** icon

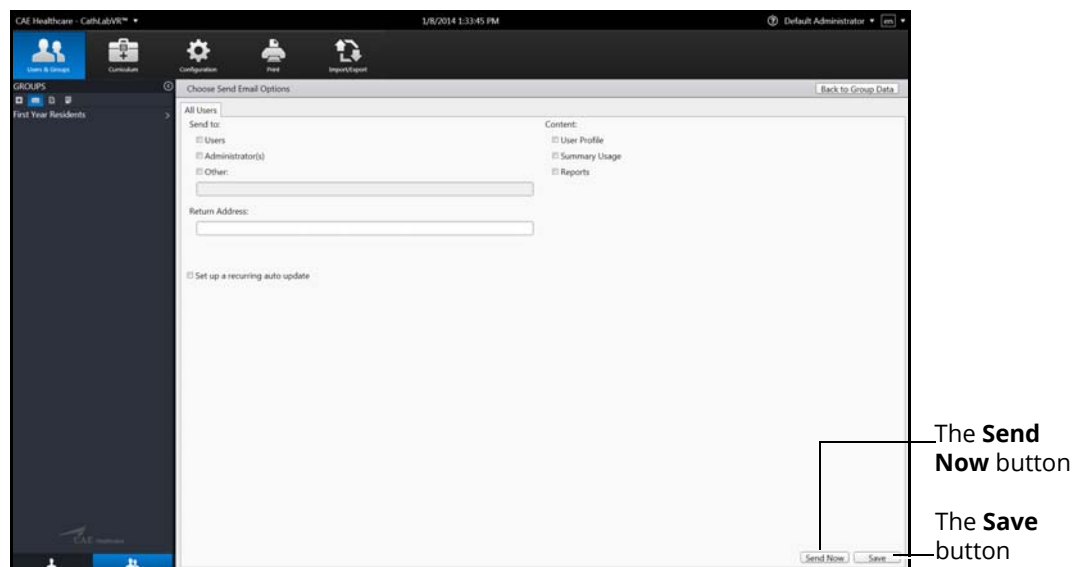


*The Users & Groups Icon*

2. From the Users and Groups screen, on the **Groups** tab, click the **Emails** button



*The Users & Groups Screen - Groups Tab*



*The Email Options Screen*

3. Select the group name tab or **All Users** tab
4. Select the recipients for the email
5. Select the content for the email. Content options include **User Profile**, **Summary Usage** and **Reports**
6. Enter a return email address in the **Return Address** text box, if desired
7. Select the **Set a recurring auto update** checkbox, if desired
8. Click **Send Now** to send the email immediately

**Note:** Email settings can be customized and saved to send at a later time. To save an email to send later, click **Save**.

# Adjusting the Network Settings

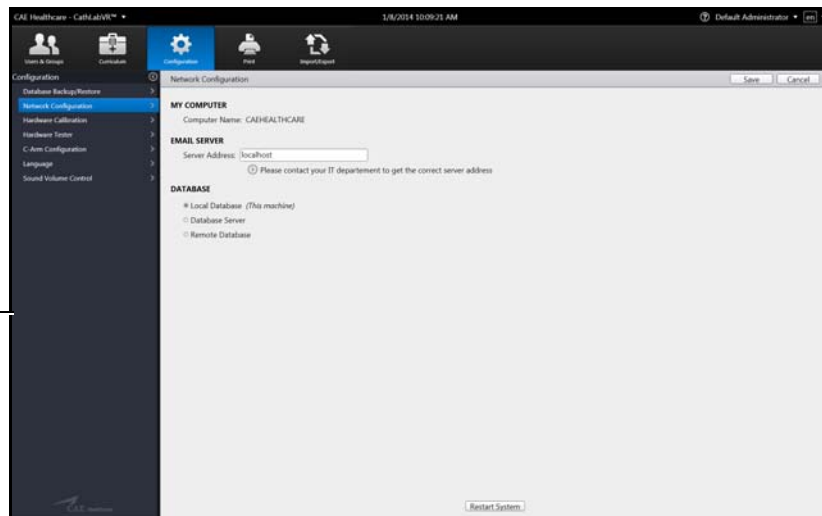
The Network Configuration screen is used to set the email server address. The server name must be for an outgoing (SMTP) mail server. This server should provide access to all users and administrators who are to receive reports through the emails function on the Users and Groups screen.

To adjust the network settings:

1. From the icon dashboard, click the **Configuration** icon



*The Configuration Icon*

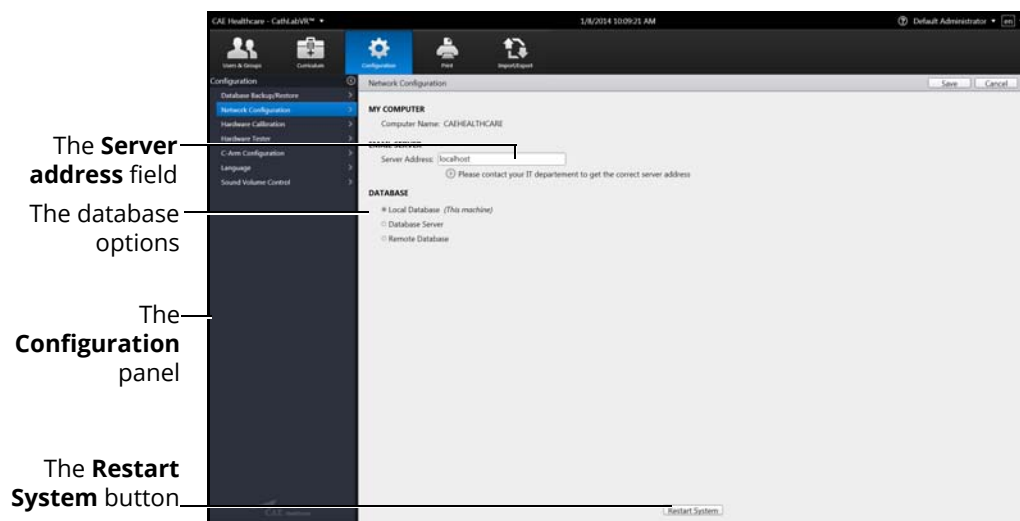


The  
Configuration  
panel

*The Network Configuration Screen*



2. From the Configuration screen, select **Network Configuration** in the **Configuration** panel



*The Network Configuration Screen*

3. Enter the SMTP server address in the **Server address** field
4. Select a database option
5. Click **Restart System** to save the information and update the settings

# Adjusting the Network Settings

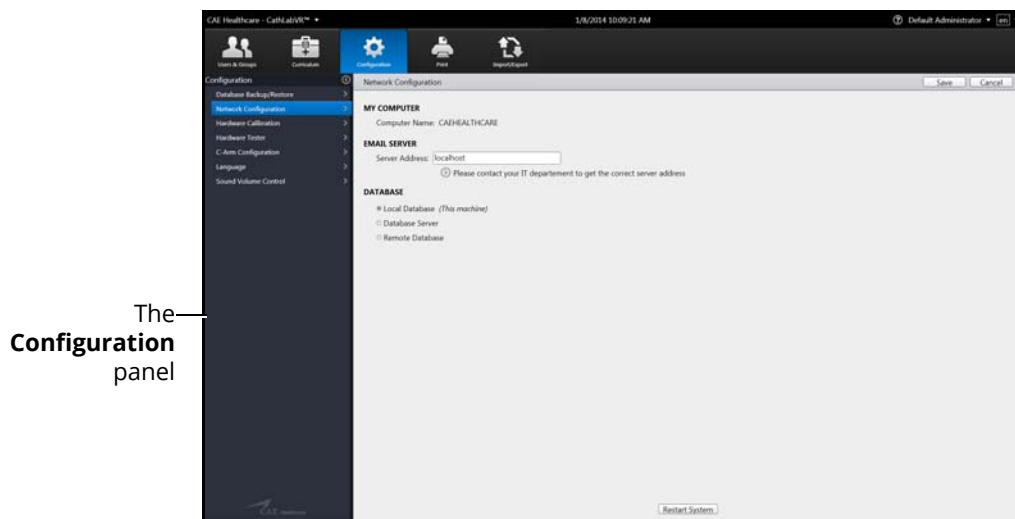
The Network Configuration screen is used to set the email server address. The server name must be for an outgoing (SMTP) mail server. This server should provide access to all users and administrators who are to receive reports through the emails function on the Users and Groups screen.

To adjust the network settings:

1. From the icon dashboard, click the **Configuration** icon

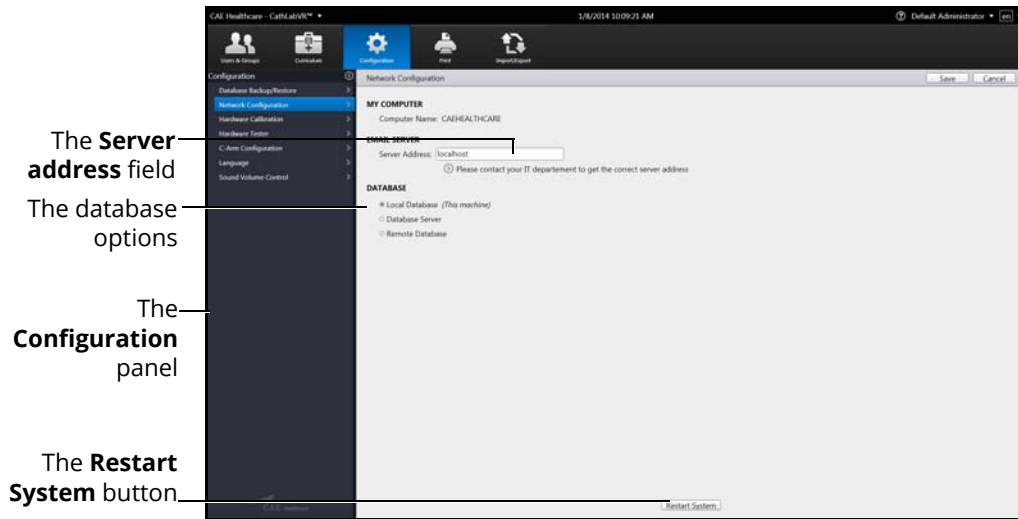


*The Configuration Icon*



*The Network Configuration Screen*

2. From the Configuration screen, select **Network Configuration** in the **Configuration** panel



*The Network Configuration Screen*

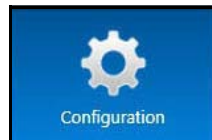
3. Enter the SMTP server address in the **Server address** field
4. Select a database option
5. Click **Restart System** to save the information and update the settings

# Advanced Hardware Calibration

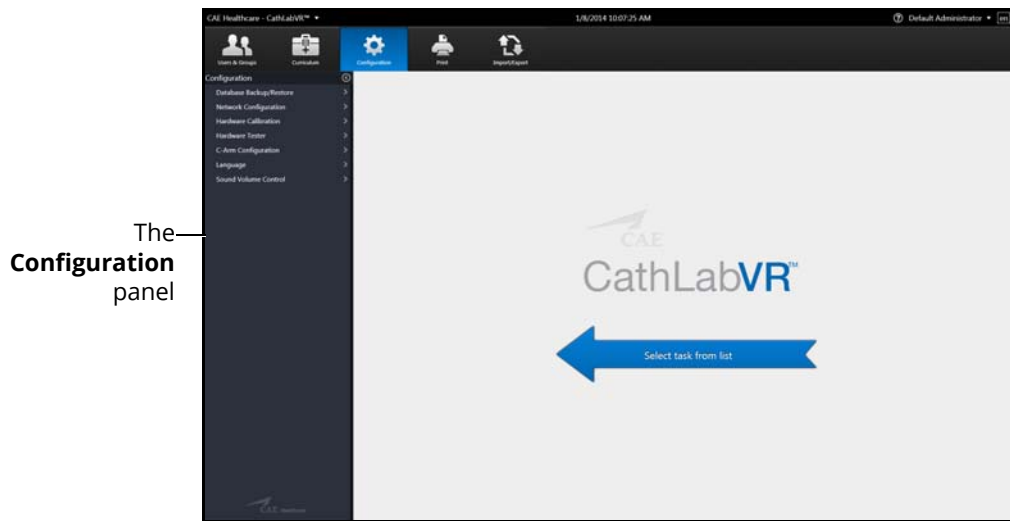
The advanced hardware calibration tool is used to ensure that the physical carriages receive the physical tools properly. Administrators are required to perform calibrations after a new installation or when the physical tool manipulation does not correspond with the virtual representation on screen during a simulation.

To complete an advanced calibration:

1. From the icon dashboard, click the **Configuration** icon



*The Configuration Icon*



*The Configuration Screen*

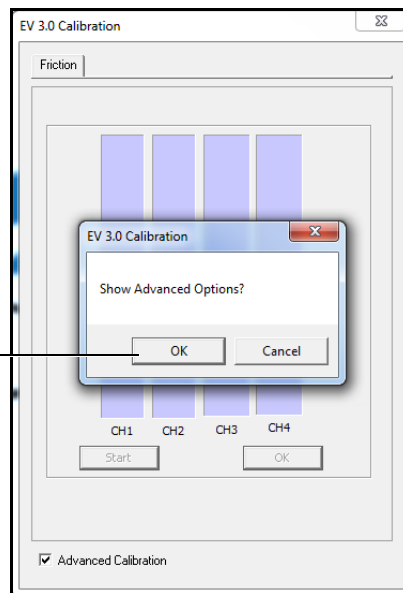
2. From the Configuration screen, select **Hardware Calibration** in the **Configuration** panel



The **Advanced Calibration** option

*The Calibration Window*

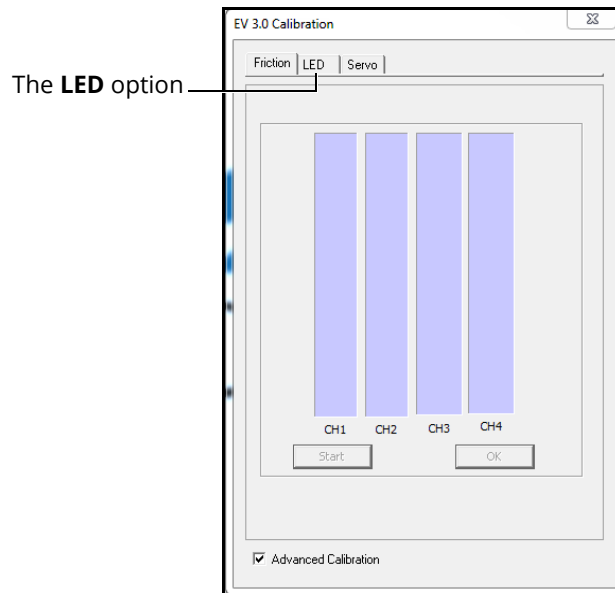
- 3. From the Calibration window, select the **Advanced Calibration** option



The **OK** button

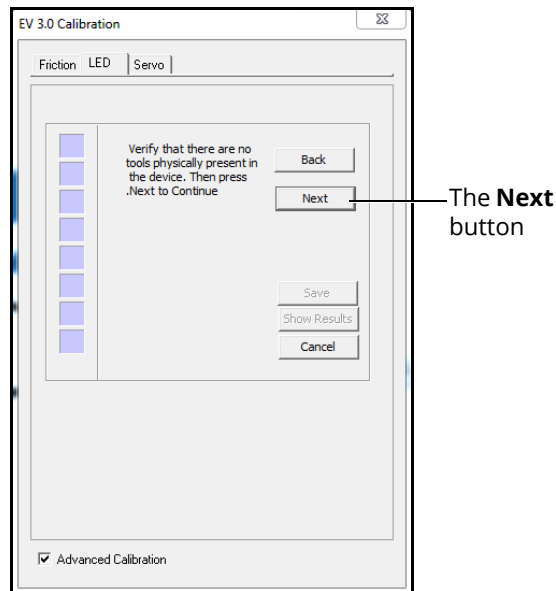
*The Calibration Window*

- 4. Click **OK**



**The Advanced Calibration Window**

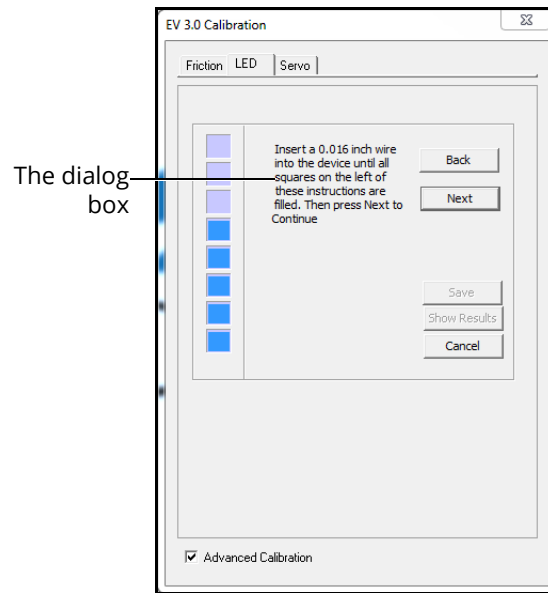
5. Select the **LED** tab



**The Advanced Calibration Window**

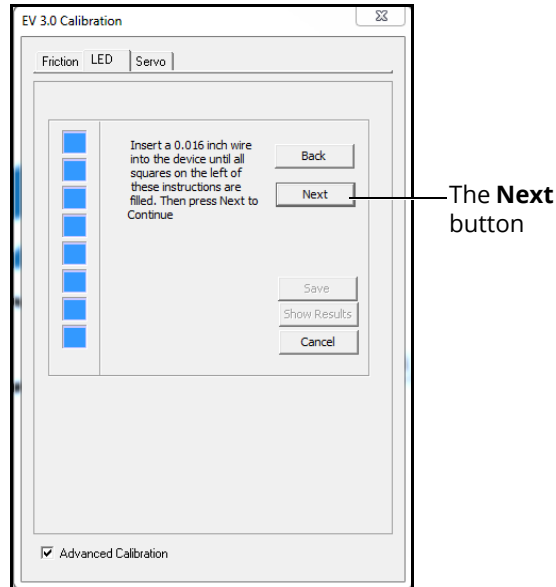
6. Verify that there are no tools physically present in the device
7. Click **Next** to begin the advanced calibration

8. Select the guidewire indicated in the dialog box and slowly insert it into the simulator. As the tool is properly inserted, the blue boxes indicate the calibration is in progress.



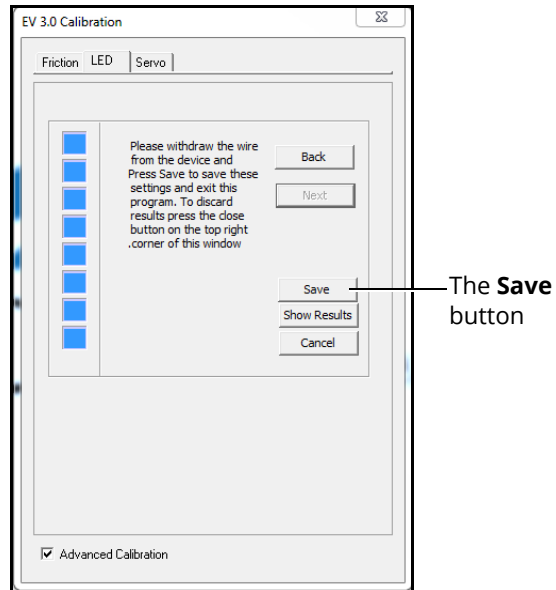
**The Advanced Calibration Window**

9. Once all the blue boxes are populated, click **Next** to complete the calibration



**The Advanced Calibration Window**

10. Click **Save** to save the results of the calibration



***The Advanced Calibration Window***

11. Withdraw the wire slowly from the simulator
12. Click the **X** icon in the upper right corner of the window to exit the calibration and return to the CathLabVR software



## Testing the Hardware

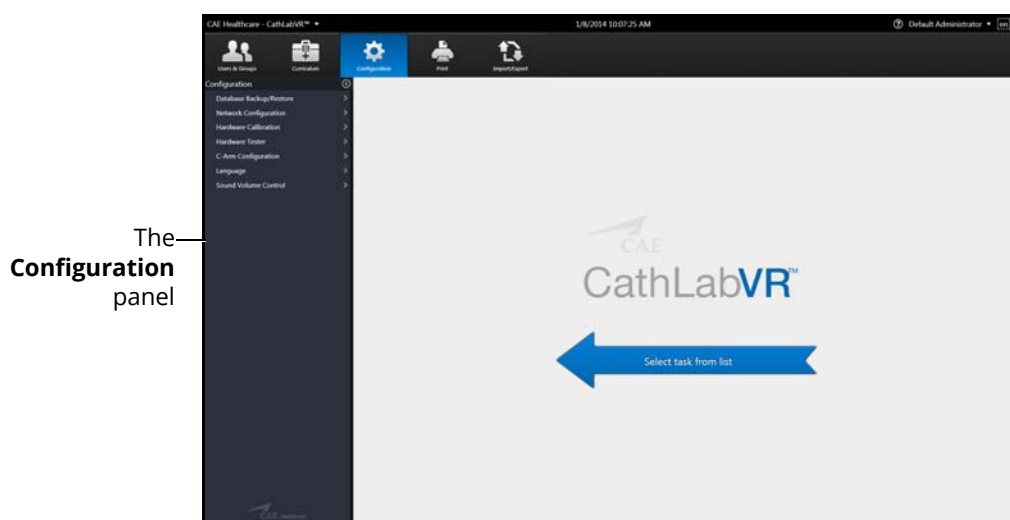
The calibration tool is used to ensure that the physical scope tracks properly with the virtual scope during the simulations. Administrators are required to perform calibrations after a new installation or when the physical scope manipulation does not correspond with the virtual scope display on screen during a simulation.

To test the hardware:

1. From the icon dashboard, click the **Configuration** icon

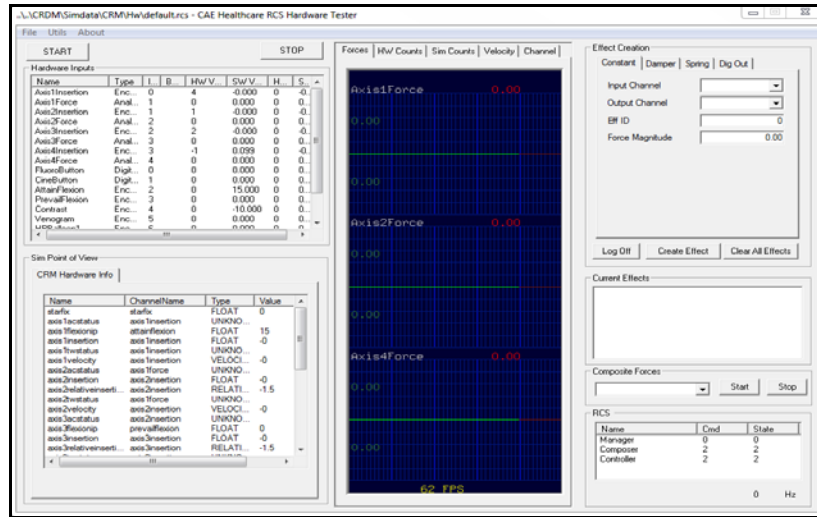


*The Configuration Icon*



*The Configuration Screen*

- From the Configuration screen, select **Hardware Tester** in the **Configuration** panel



**The Hardware Tester Winder**

From the Hardware Tester screen, administrators can view the current hardware settings and test the functionality. For further assistance, contact the IT administrator for your facility.

## Configuring the C-Arm

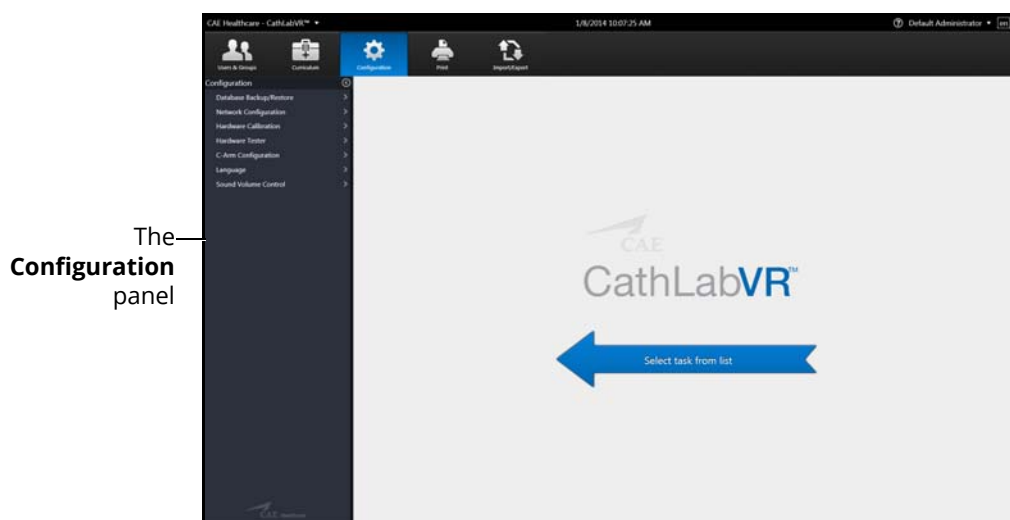
The C-Arm configuration tool allows administrators to choose the necessary C-Arm settings for the simulator.

To configure the C-Arm:

1. From the icon dashboard, click the **Configuration** icon

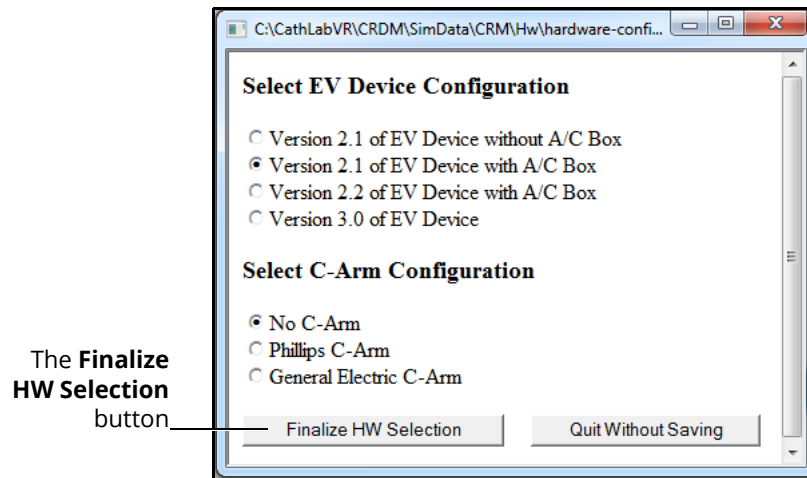


*The Configuration Icon*



*The Configuration Screen*

2. From the Configuration screen, select **C-Arm Configuration** in the **Configuration** panel



***The EV Device and C-Arm Configuration Window***

From the EV Device and C-Arm Configuration window, administrators can customize the device and C-Arm configurations.

3. Click **Finalize HW Selection** to save the settings

## Backing Up the Database

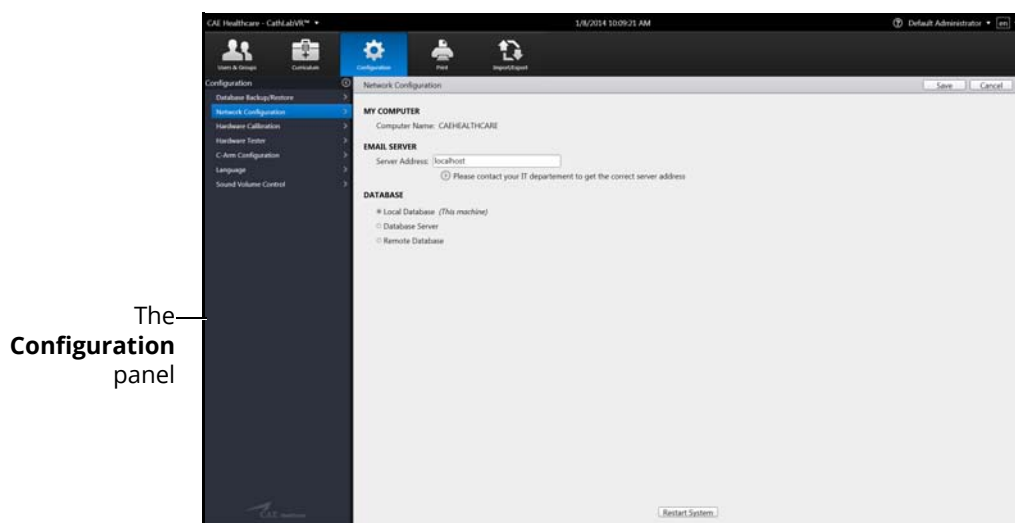
Administrators can back up the simulator database using the Database Backup feature located on the Configuration screen.

To back up the simulator database:

1. From the icon dashboard, click the **Configuration** icon

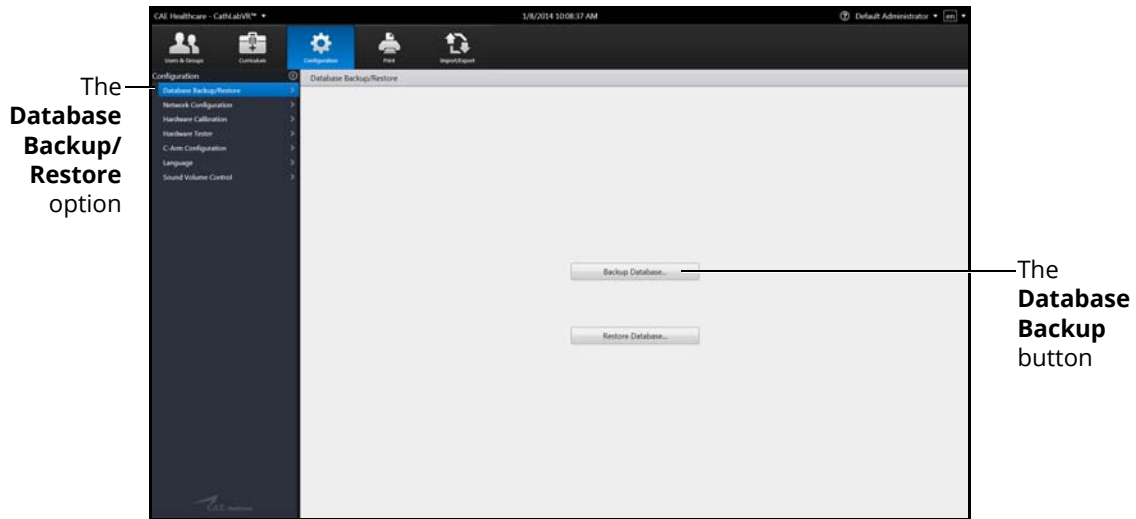


*The Configuration Icon*



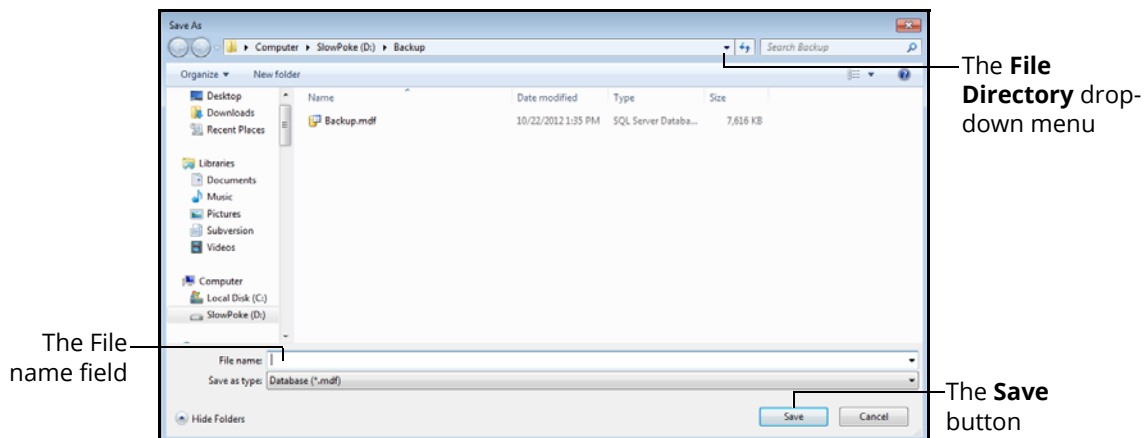
*The Network Configuration Screen*

2. From the Configuration screen, select the **Database Backup/Restore** option from the **Configuration** panel



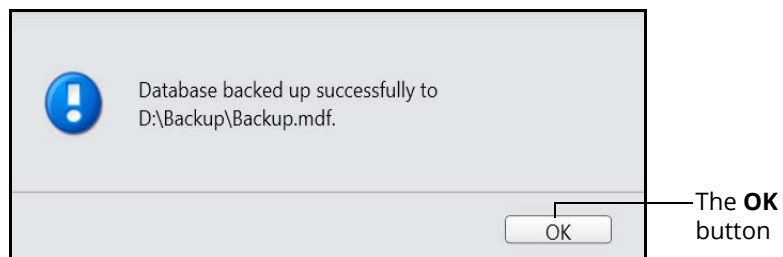
**The Database Backup/Restore Screen**

3. Click the **Database Backup** button



**The Save As Window**

4. Click the **File Directory** drop-down menu to navigate to the desired location where the backup file will be stored
5. Enter the desired file name for the database backup file in the **File name** field
6. Click **Save**



***The Database Backed Up Successfully Message***

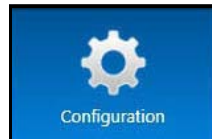
7. Click **OK** to return to the Database Backup/Restore screen

# Restoring the Database

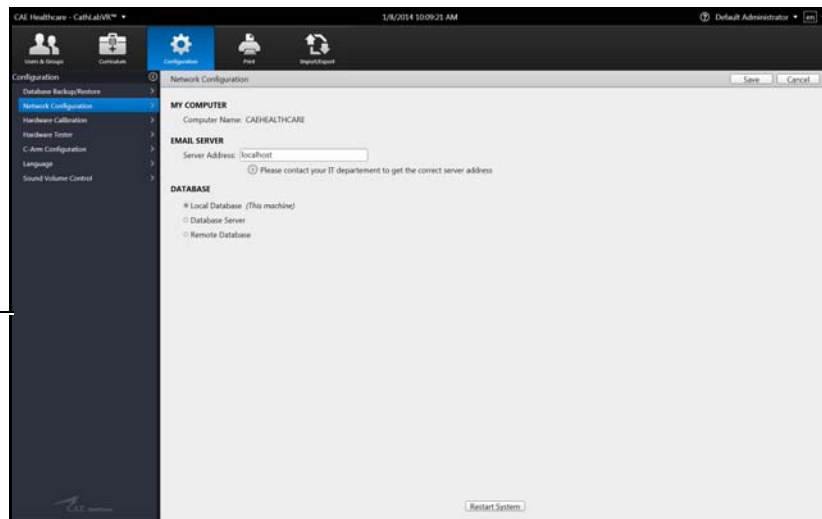
Administrators can restore the simulator database using the Database Restore feature located on the Configuration screen.

To back up the simulator database:

1. From the icon dashboard, click the **Configuration** icon



*The Configuration Icon*

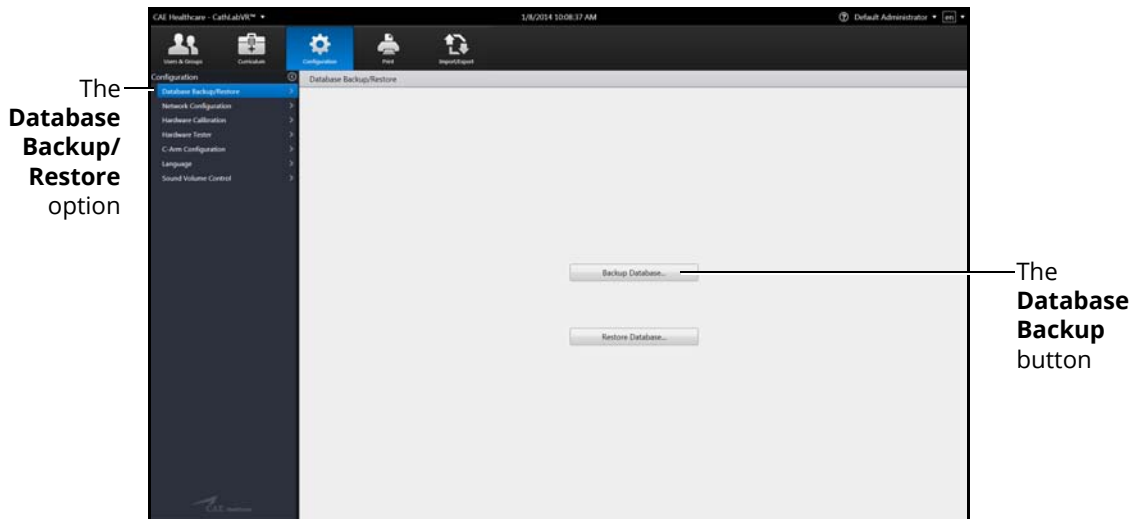


The  
Configuration  
panel

*The Network Configuration Screen*

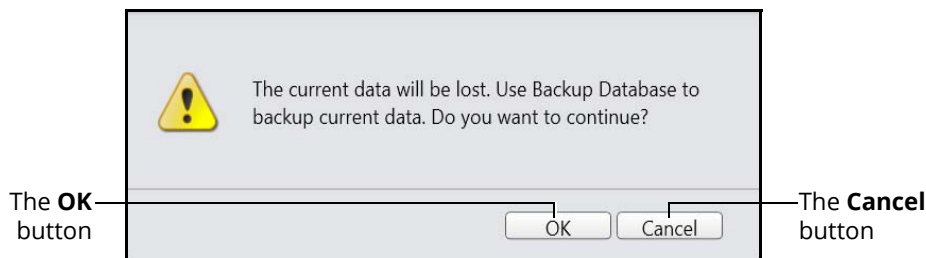
2. From the Configuration screen, select the **Database Backup/Restore** option from the **Configuration** panel





**The Database Backup/Restore Screen**

- 3. Click the **Restore Database** button



**The Back Up Current Data Warning Message**

**Note:** The message states any data that has been added, deleted or modified since the last backup will be lost when a restore is performed.

Click **Cancel** to cancel the restore and return to the Database Backup/Restore screen to perform a backup.

- 4. Click **OK** to continue with the restore



**The Database Restored Successfully Message**

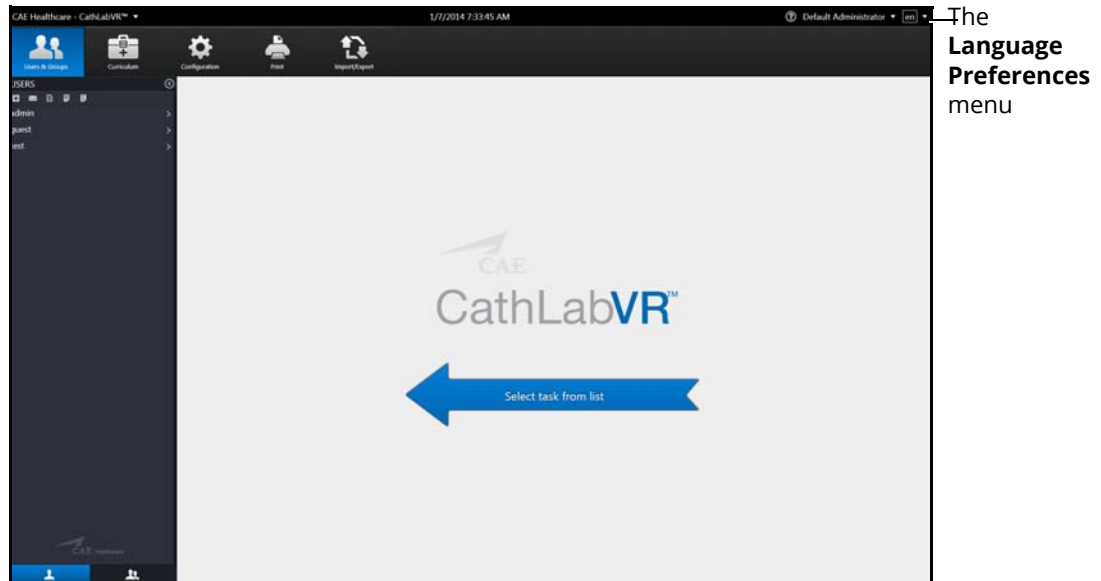
- 5. Click **OK** to return to the Database Backup/Restore screen

# Modifying Language Preferences

Administrators can change the language settings for their personal account using the language preferences menu in the top right corner of the Home screen or from the Configuration screen.

To modify the language preferences from the Home screen:

1. Click the **Language Preferences** menu



*The Home Screen*

2. Select the preferred language from the drop-down menu  
A checkmark appears next to the selected language and the language is applied to the software.

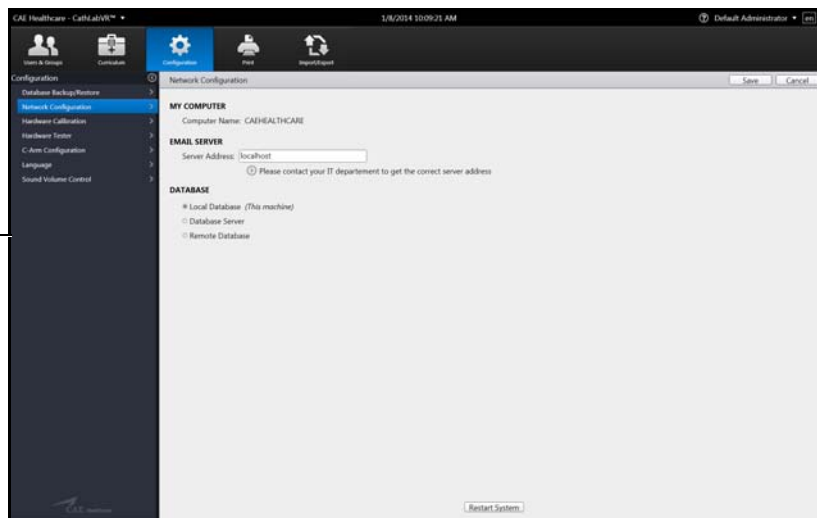
To modify the language preferences from the Configuration screen:

1. From the icon dashboard, click the **Configuration** icon



*The Configuration Icon*

The  
Configuration  
panel



*The Configuration Screen*

2. Click the **Language** option in the **Configuration** panel

**Note:** Since English is currently the only available language, no other options are available to set as default.

# Adjusting the Volume Controls

Administrators can configure the sound and volume hotkeys from the Configuration screen.

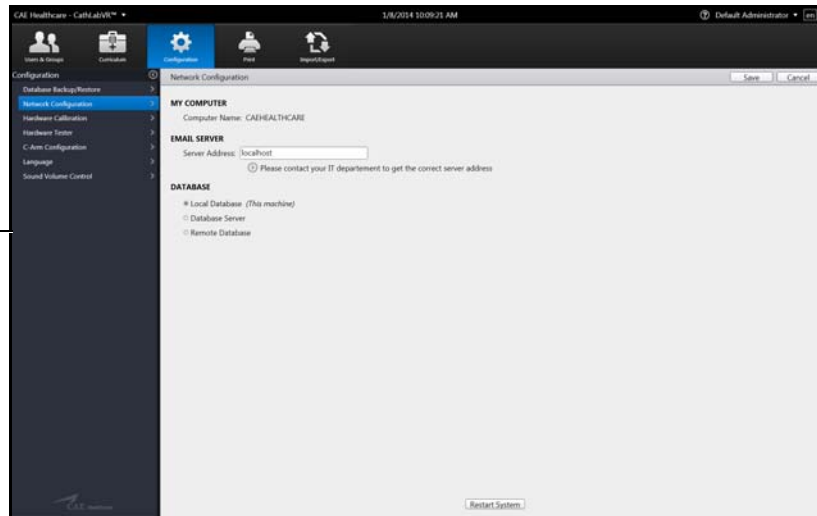
To adjust the volume controls

1. From the icon dashboard, click the **Configuration** icon



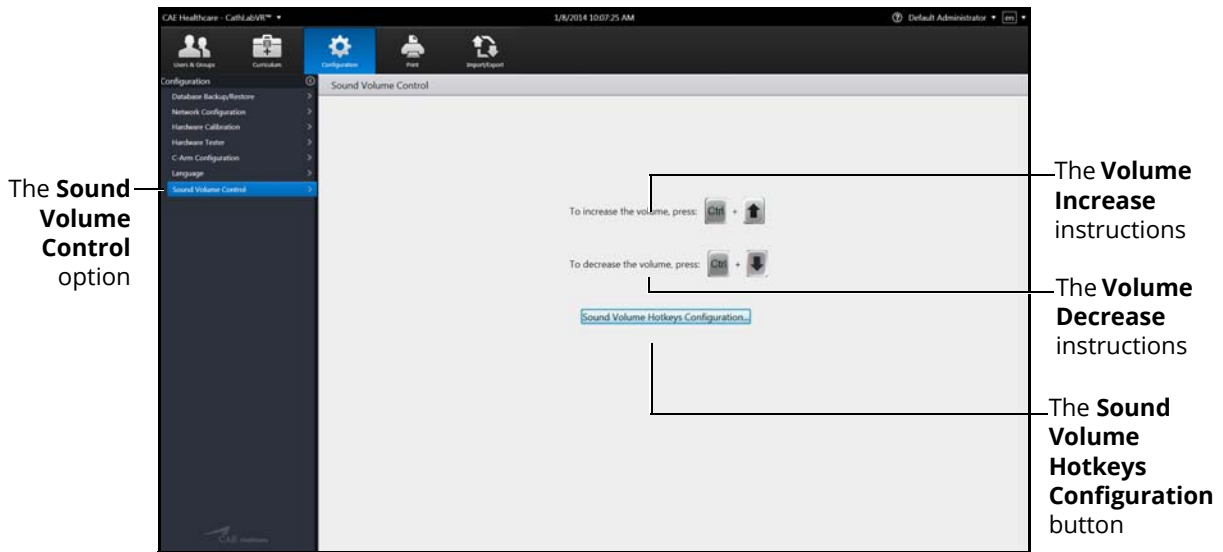
*The Configuration Icon*

The  
Configuration  
panel



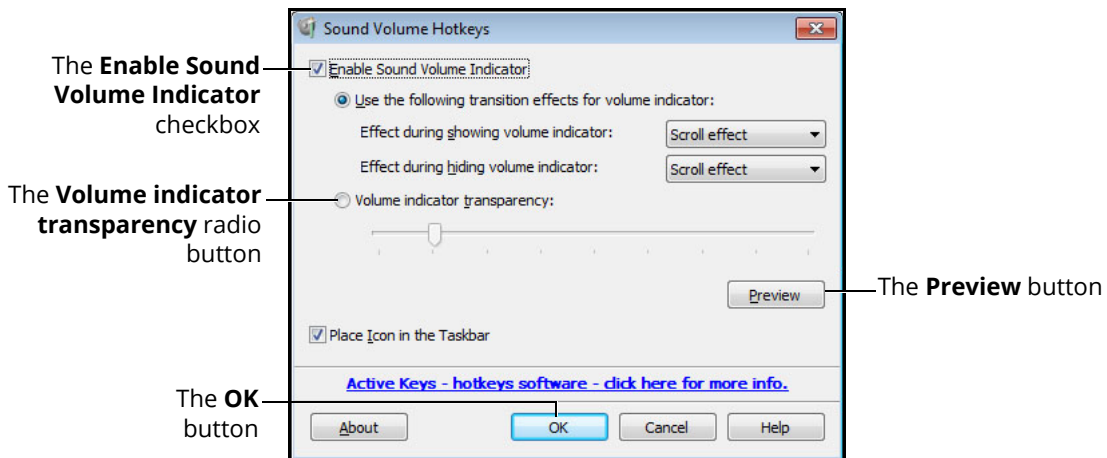
*The Configuration Screen*

- From the Configuration screen, select the **Sound Volume Control** option in the **Configuration** panel



*The Sound Volume Control Screen*

- Click the **Sound Volume Hotkeys Configuration** button



*The Sound Volume Hotkeys Window*

- Select the **Enable Sound Volume Indicator** (selected by default) to display the volume increase/decrease slider when the hotkeys are used
- Select the **Volume indicator transparency** radio button
- Use the slider to adjust the transparency of the volume indicator when it appears on the screen
- Click the **Preview** button to see how the volume indicator will display with the adjusted settings
- Click **OK** to return to the Sound Volume Control screen

# Printing Data

From the Print screen, administrators can print customized data including user profiles, usage summaries and reports.

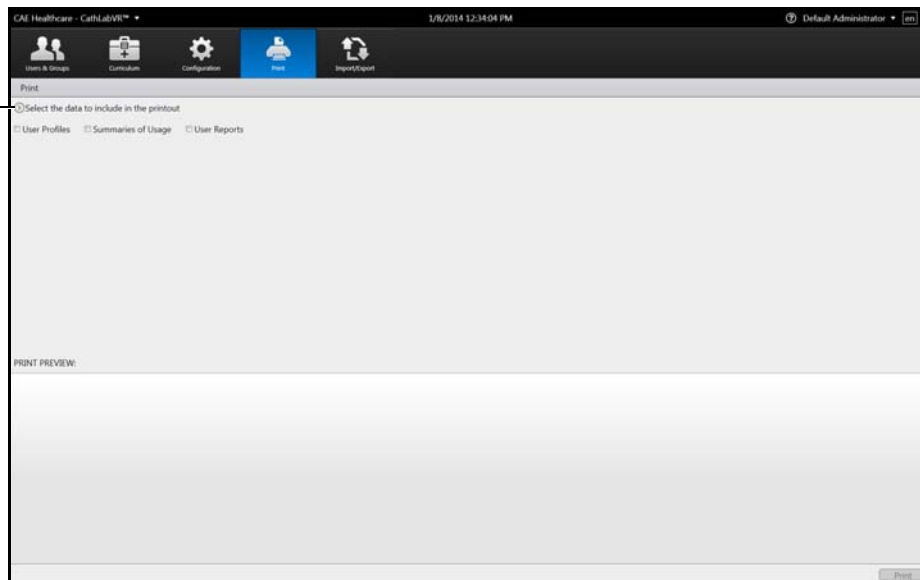
To create a print preview:

1. From the icon dashboard, click the **Print** icon



*The Print Icon*

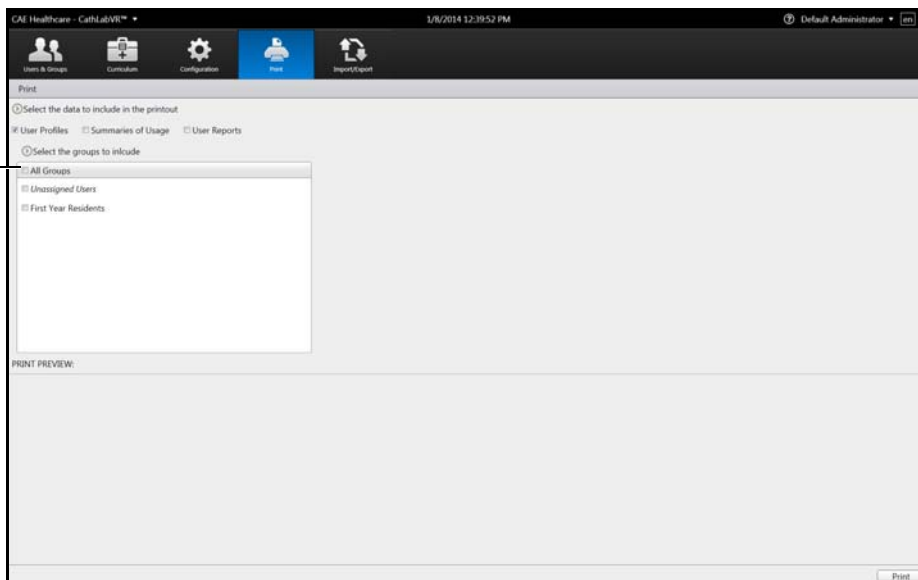
The  
Data  
options



*The Print Screen*

- From the **Data** options, select the desired data to include in the printout

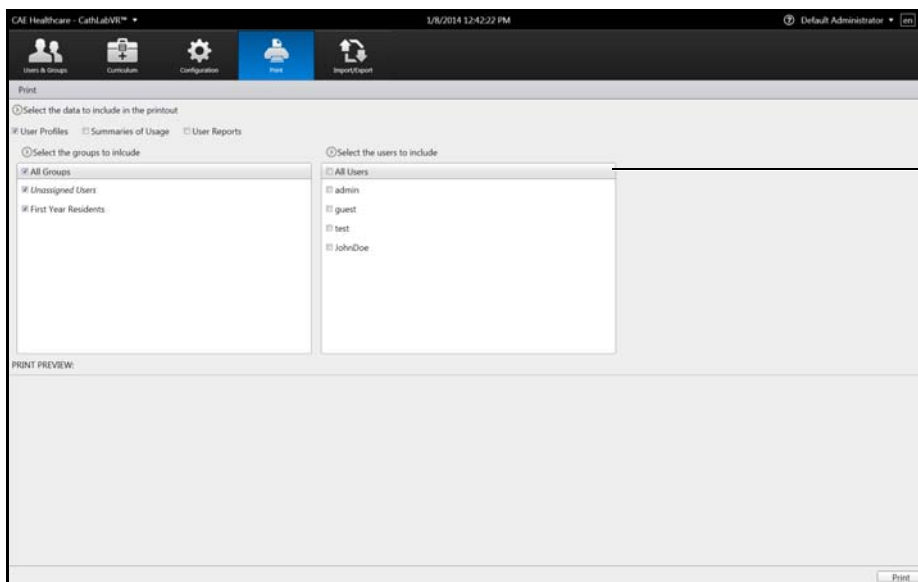
The **Groups** options



*The Print Screen*

- From the **Groups** options, select the desired groups to include in the print preview or select **All Groups**

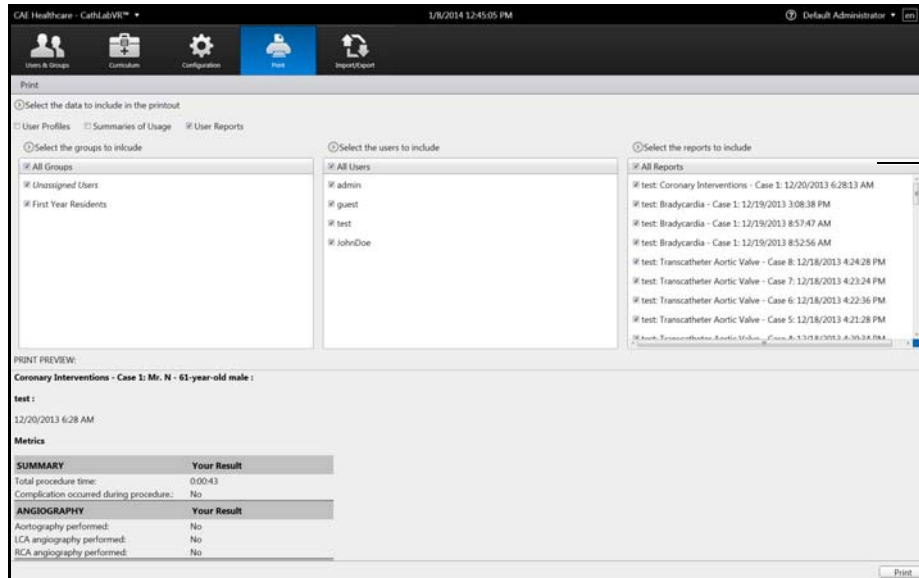
The **Users** options



*The Print Screen*

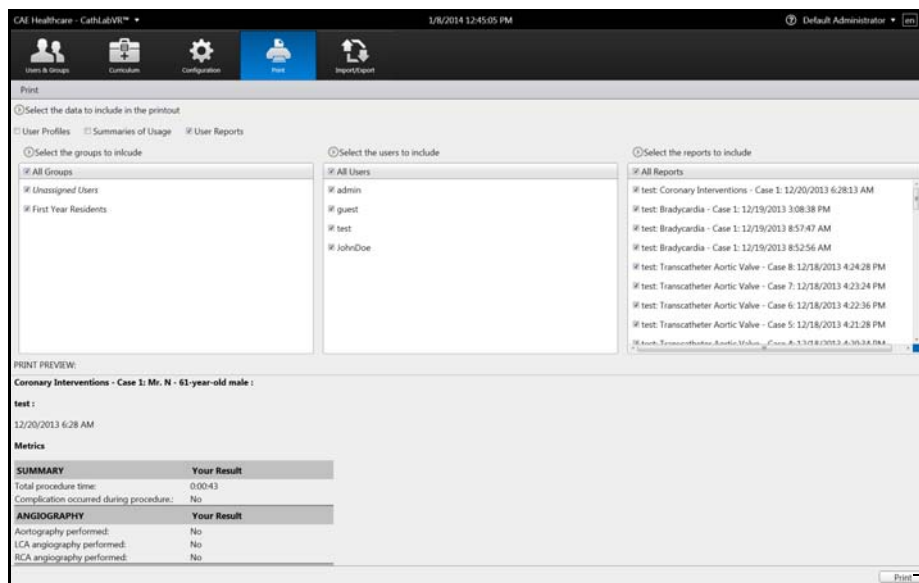
- From the **Users** options, select the desired users to include in the print preview or select **All Users**

**Note:** If the User Reports data was selected, the **User Reports** options appear. From the **User Reports** options, select the desired user reports to include in the print preview or select **All User Reports**.



The Reports options

The Print Screen



The Print button

The Print Screen

**Note:** A network connection is required for printing documents from the simulator to a printer. To add a printer to the network, exit the software and consult your Windows Help menu.

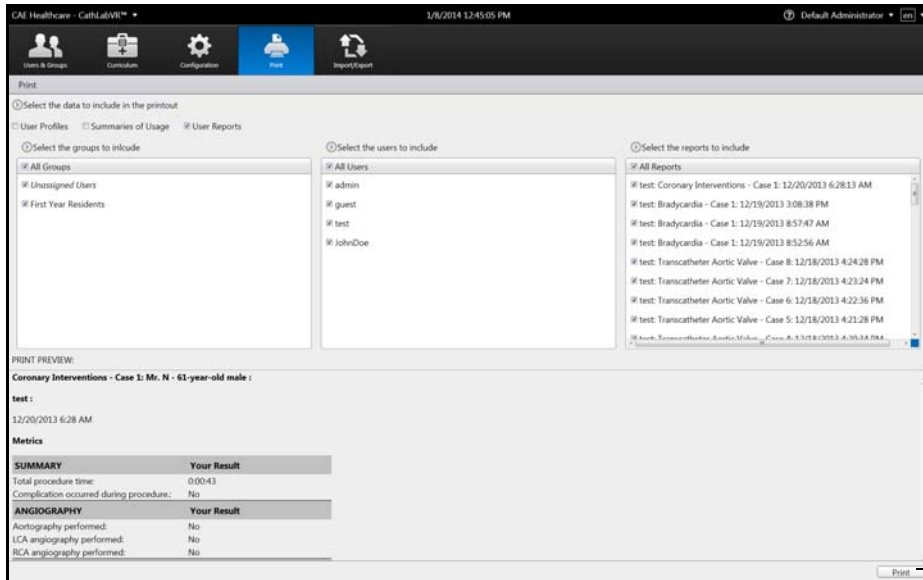


# Printing Data to a PDF File

If network connection is not available or no printers are available on the network, administrators can print data to a PDF file and save the file to an external device to print on a computer with a network printer connection.

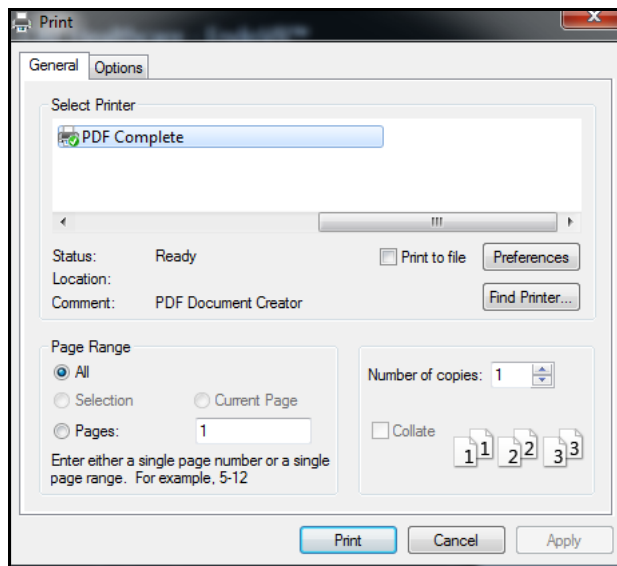
To print data to a PDF file:

1. From the Print screen, click **Print**



The **Print** button

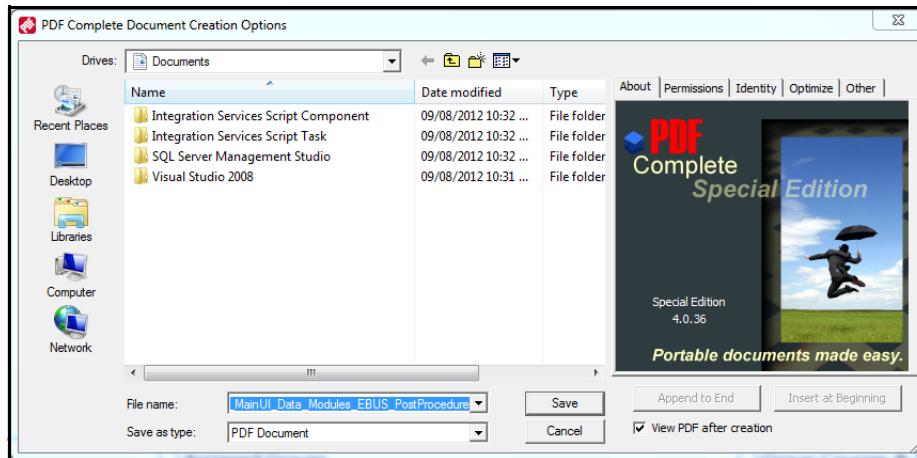
*The Print Screen*



*The Print Window*

2. Select the **PDF Complete** program

3. Click **Print**

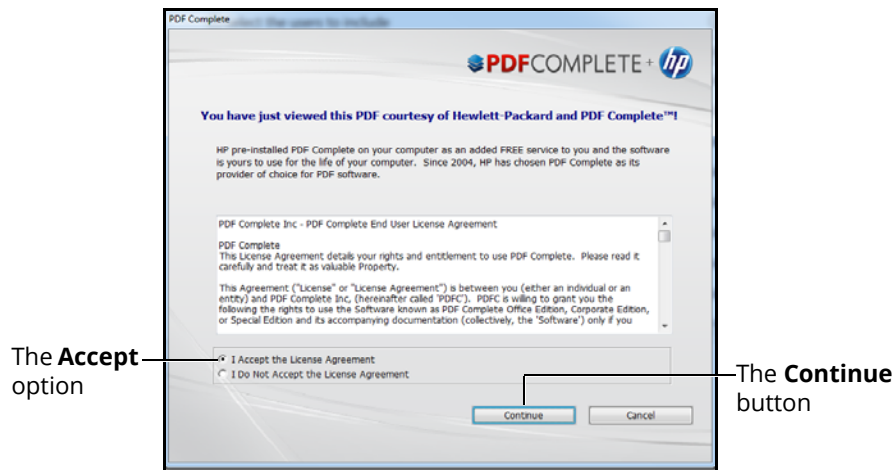


**The PDF Complete Document Creation Options Window**

4. Select the desired folder where the file will be saved

**Note:** If the location is on an external device, use the USB port located on the back of the simulator to connect the external device to the simulator.

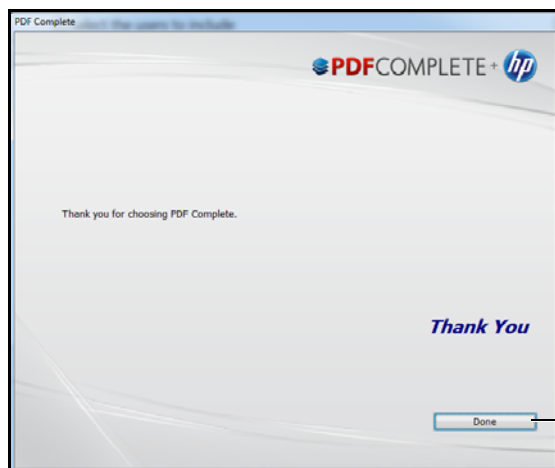
5. Enter the desired file name in the **File name** field and click **Save**



**The PDF Complete Window**

6. Select the acceptance option

7. Click the **Continue** button

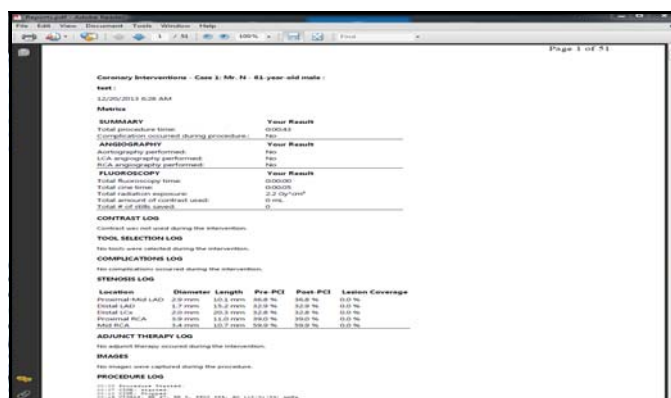


The **Done** button

*The PDF Complete Window*

8. Click **Done**

The **Adobe Reader** window appears with the completed PDF.

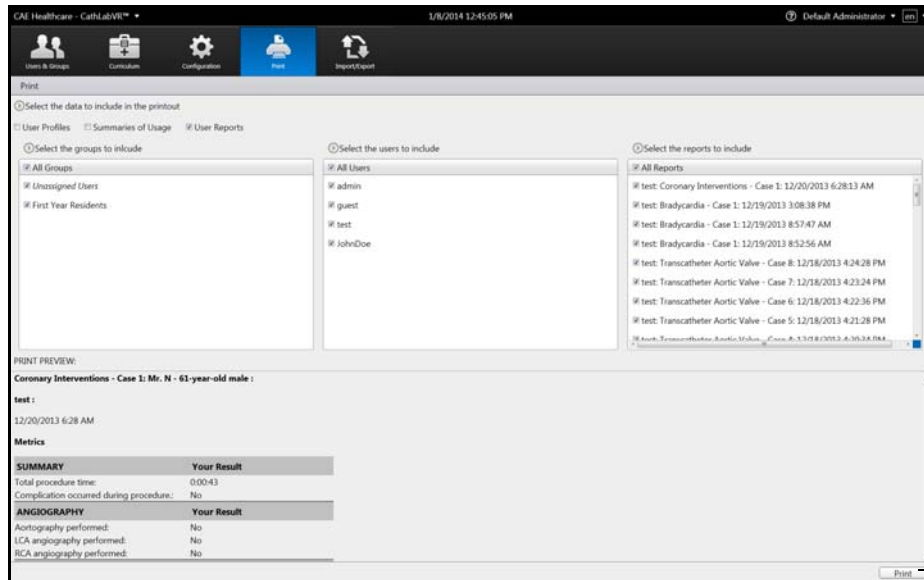


*The Adobe Reader Window*

## Printing Data to a Network Printer

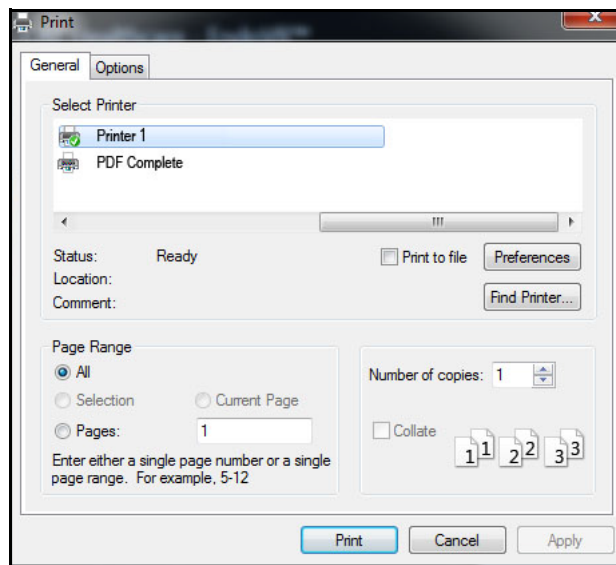
To print data to a network printer:

1. From the Print screen, click the **Print** button



The **Print** button

*The Print Screen*



*The Print Window*

2. Select the desired network printer
3. Click **Print**

**Note:** A network connection is required for printing documents from the simulator to a printer.

# Importing Users

Using the import function, administrators can add data for multiple users in one process.

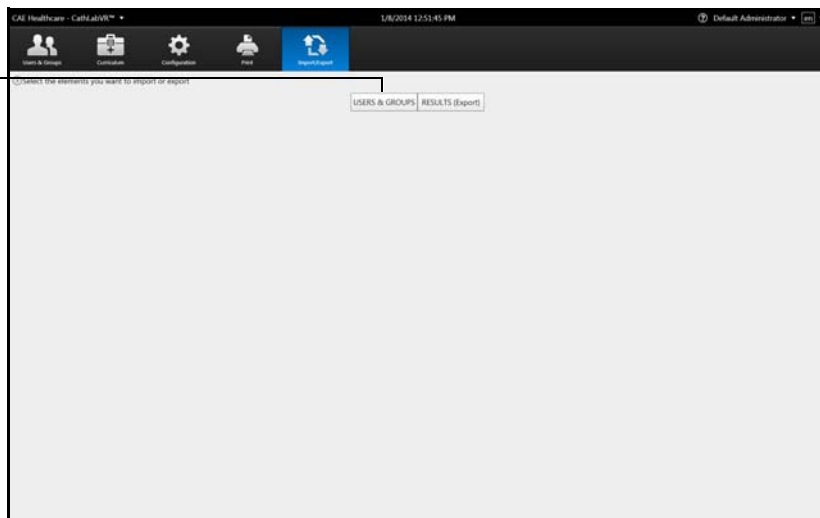
To import users:

1. From the icon dashboard, click the **Import/Export** icon



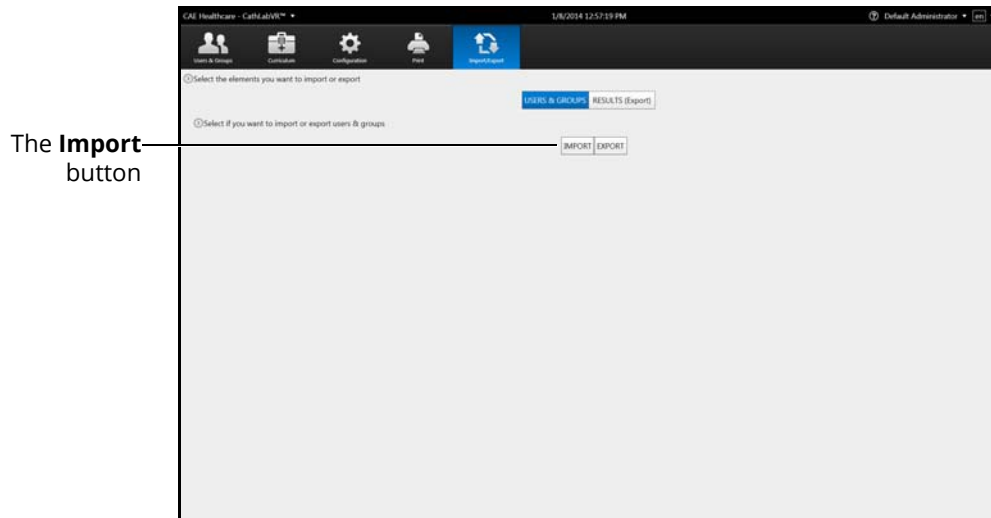
*The Import/Export Icon*

The **Users & Groups** button



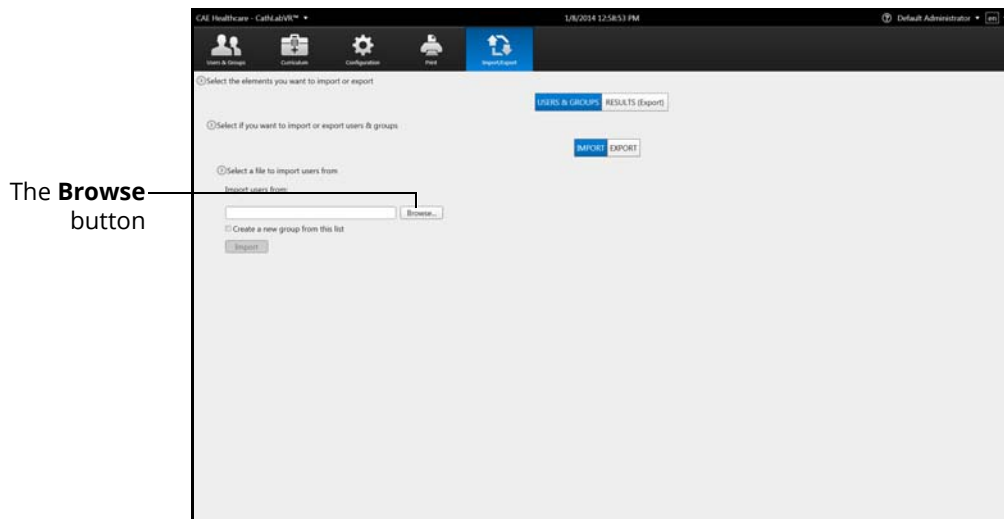
*The Import/Export Users Screen*

2. From the Import/Export screen, click **Users & Groups**



*The Import/Export Users Screen*

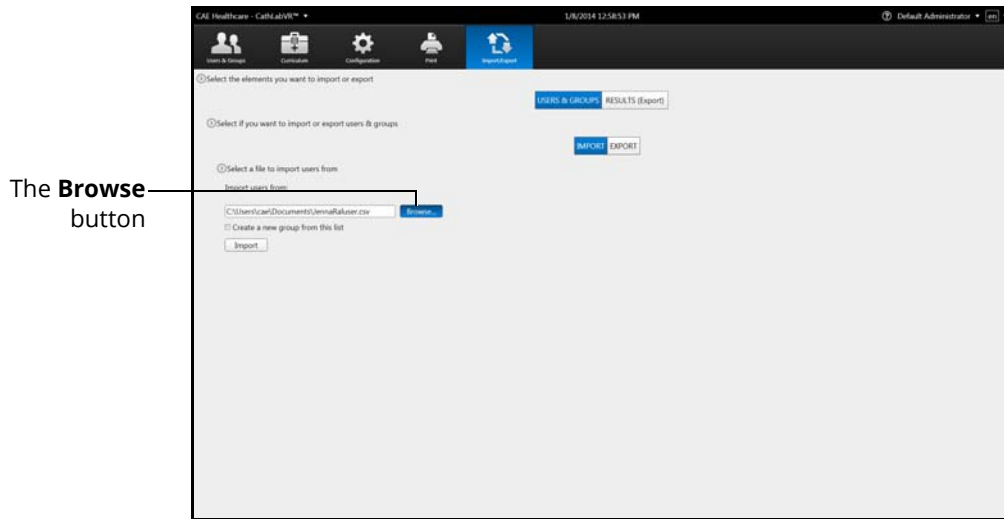
3. Click **Import**



*The File Selection Tools*

4. Click **Browse**
5. Select the comma delineated (CSV) file to import
 

**Note:** If the file is located on an external device, use the USB port located on the back of the simulator to connect the external device to the simulator.
6. Click **Open**



**The File Selection Tools**

7. Select **Create a new group from this list** to create new group from the file, if desired
8. Click **Import**



**The Import Success Message**

9. Click **OK**

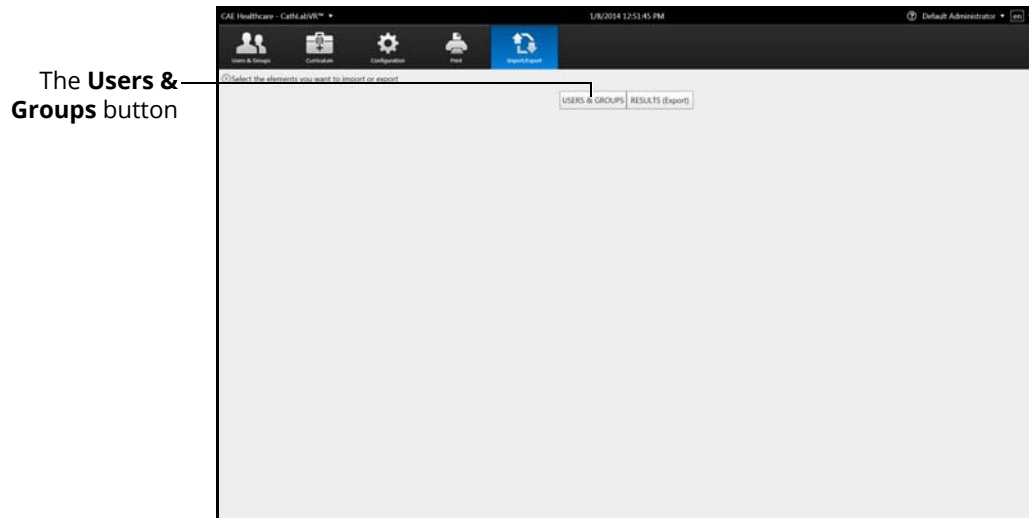
## Exporting Users and Groups

To export users and groups:

1. From the icon dashboard, click the **Import/Export** icon

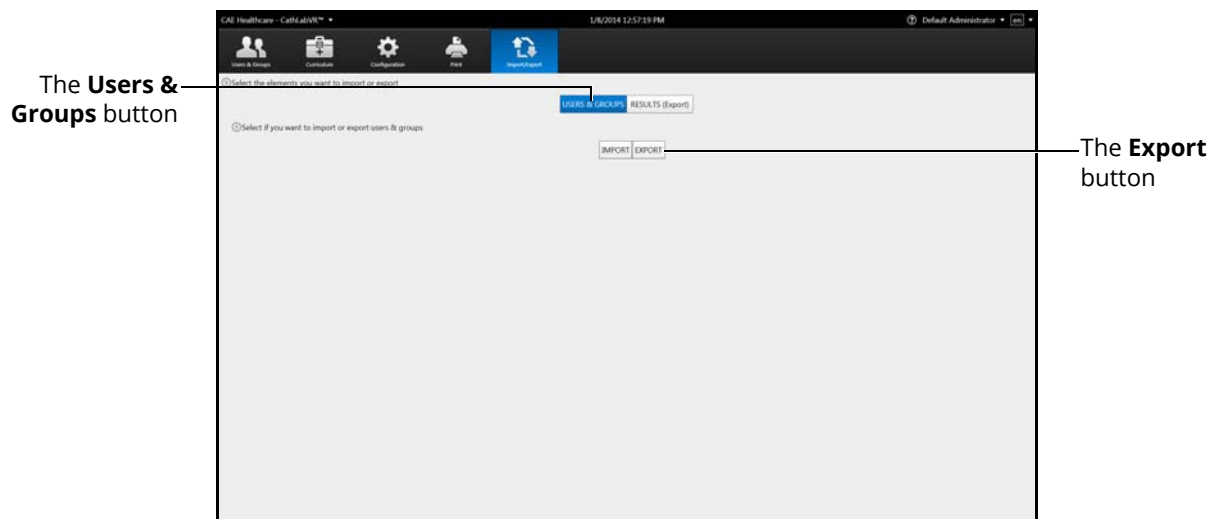


*The Import/Export Icon*



*The Import/Export Screen*

2. From the Import/Export screen, click **Users & Groups**

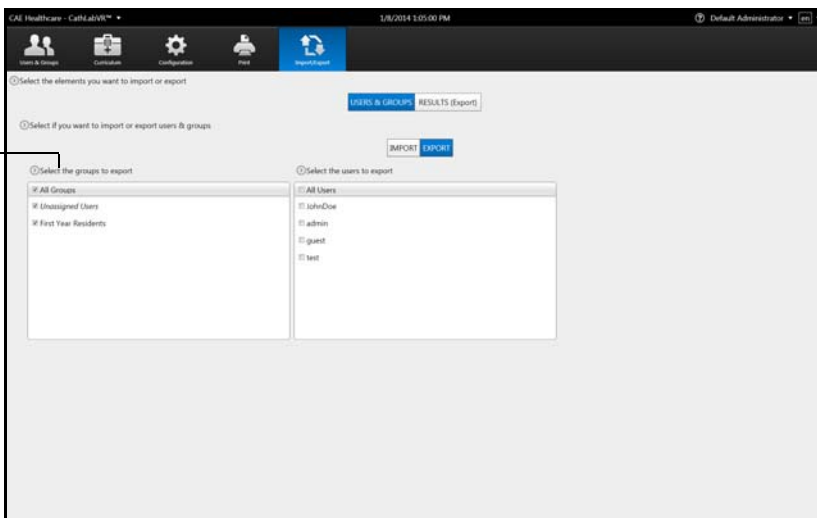


*The Import/Export Screen*

3. Click **Export**



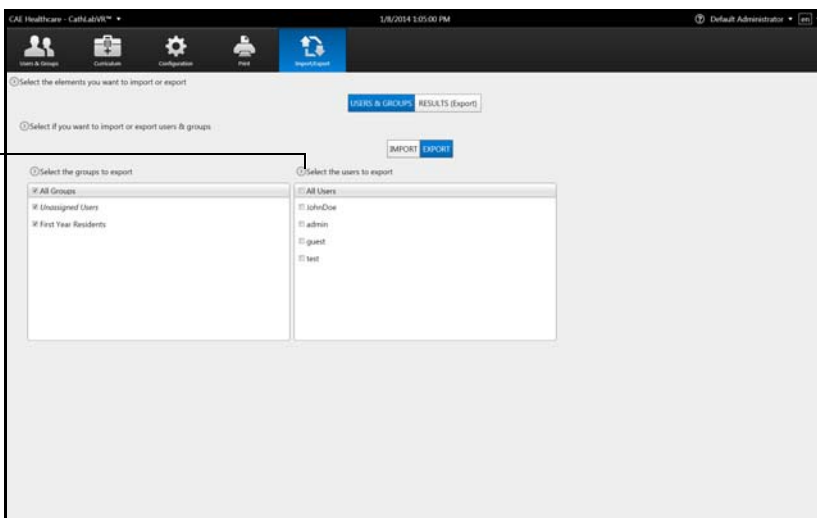
The **Groups** options



*The User Export Screen*

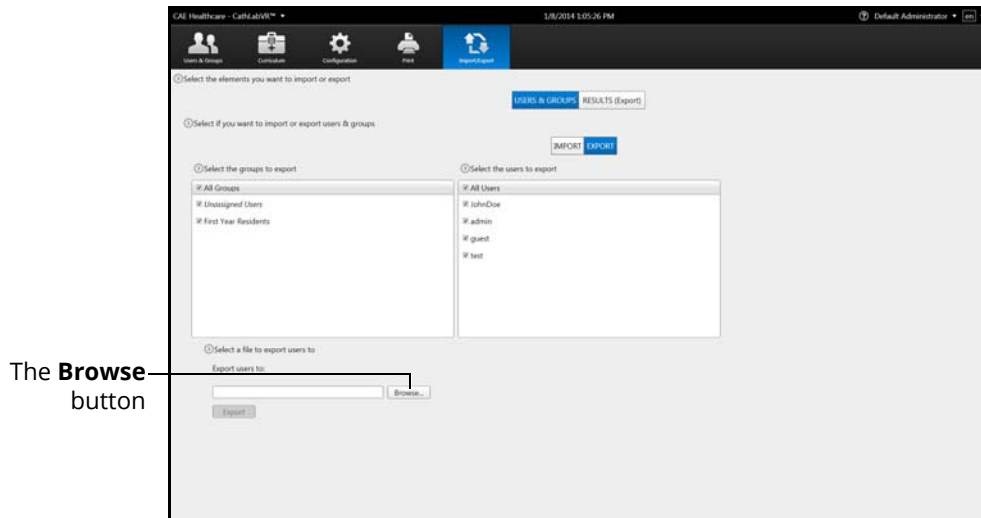
- 4. Select the group or **All Groups** from the **Groups** options

The **Users** options



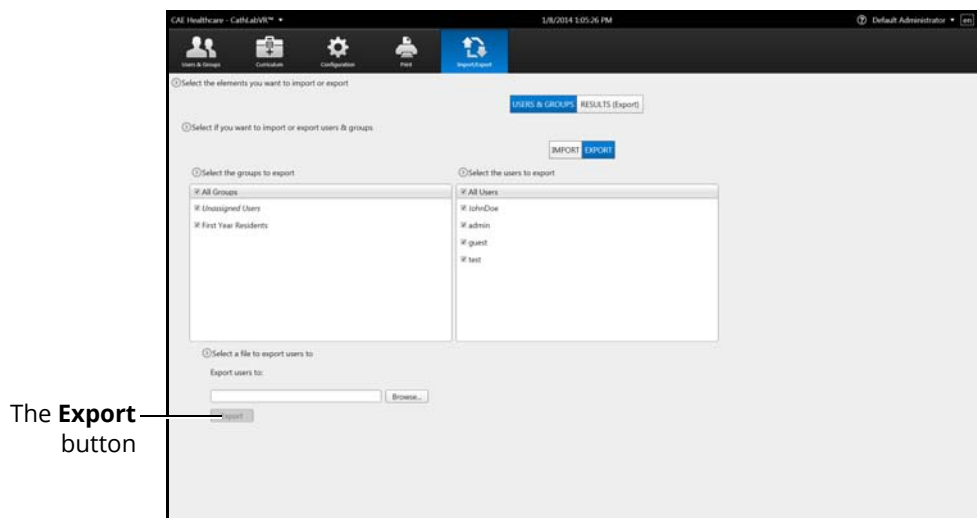
*The User Export Screen*

- 5. Select the user or **All Users** from the users options



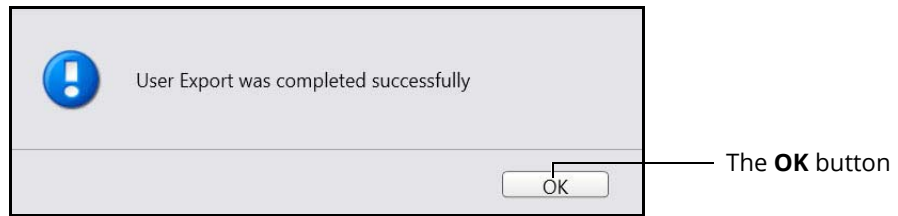
*The User Export Screen*

6. Click **Browse**
7. Select the location where the file will be saved when the exporting is complete  
**Note:** If the location is on an external device, use the USB port located on the back of the simulator to connect the external device to the simulator.
8. Click **Open**



*The Selected Export File*

9. Click **Export**



*The Export Success Message*

10. Click **OK**

# Exporting Results

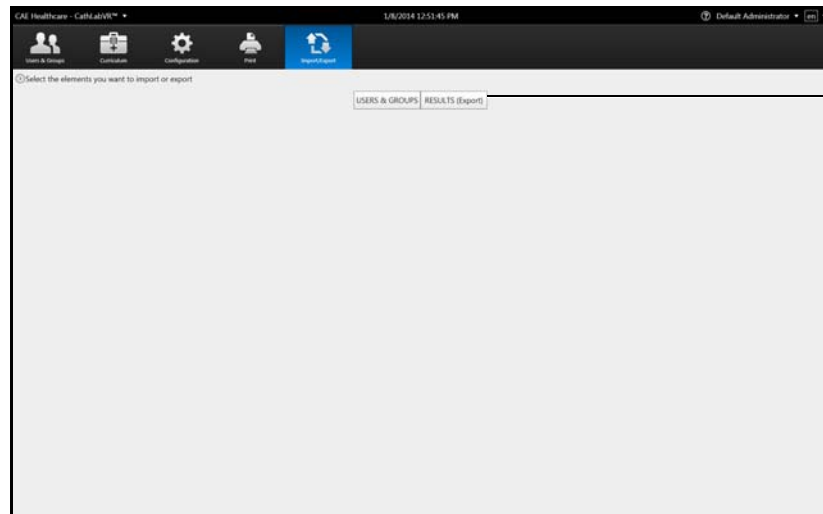
Administrators can export results to an external device for evaluation and record purposes. The data is exported into a comma delineated (CSV) spreadsheet file from the CathLabVR simulator.

To export results:

1. From the icon dashboard, click the **Import/Export** icon

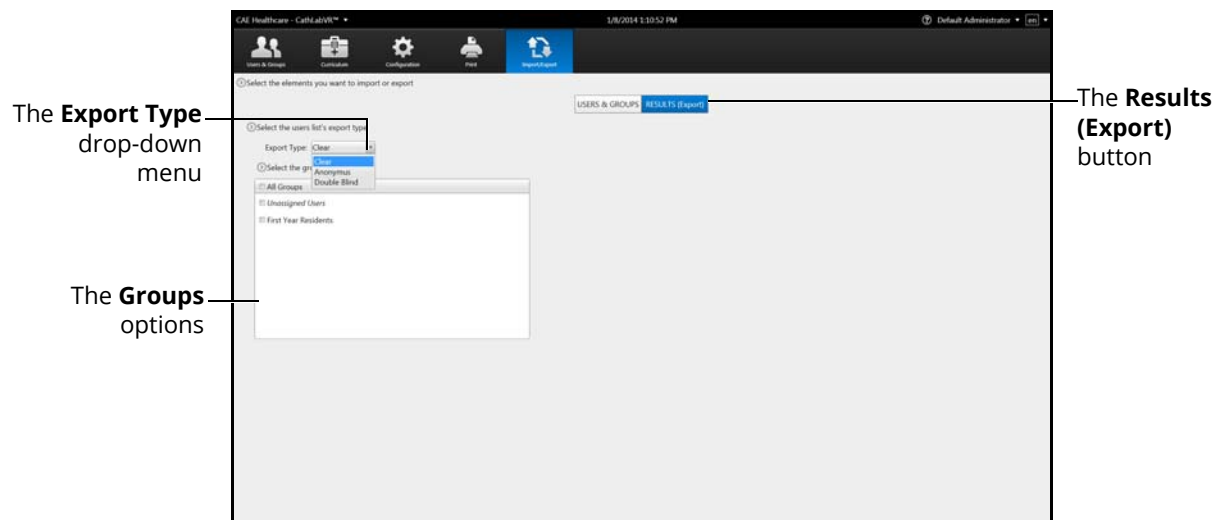


*The Import/Export Icon*



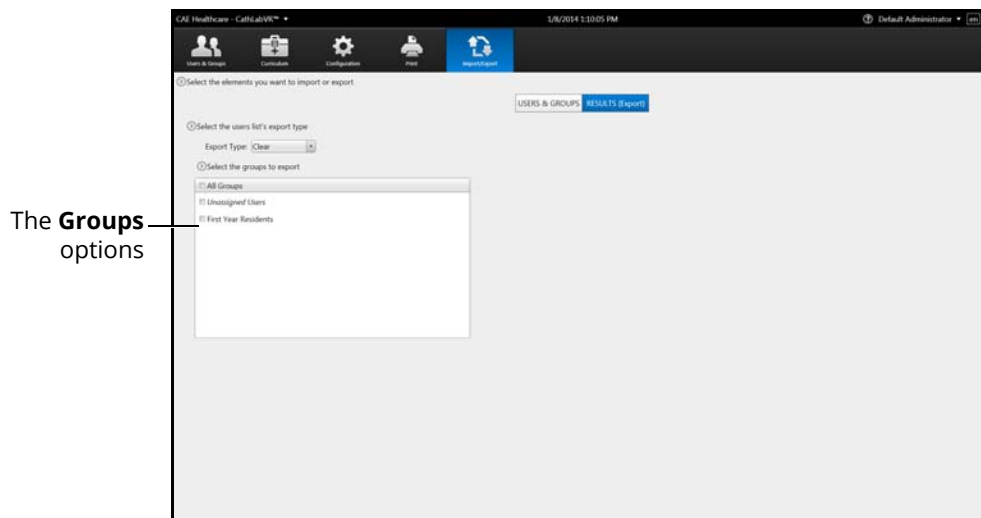
*The Import/Export Screen*

2. From the Import/Export screen, click **Results (Export)**



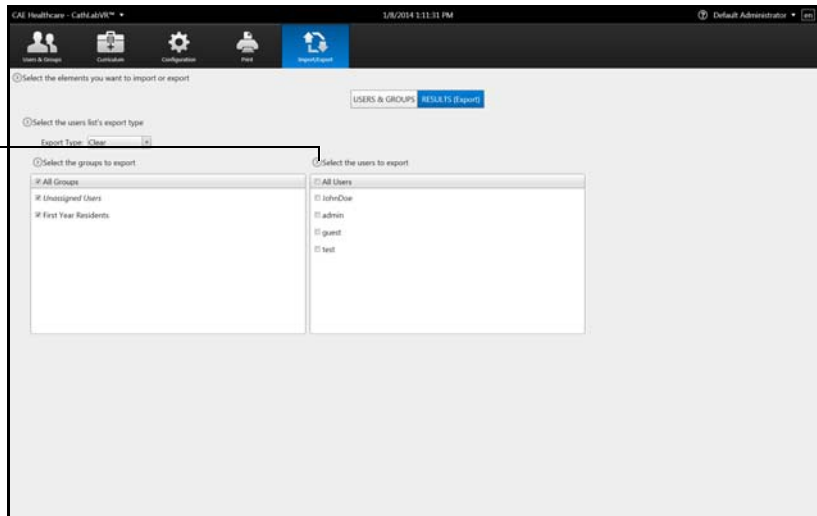
*The Export Results Screen*

3. Select the export type from the drop-down menu. Choose from **Clear** (default), **Anonymous** or **Double Blind**
4. Select the group or **All Groups** from the **Groups** options



*The Export Results Screen*

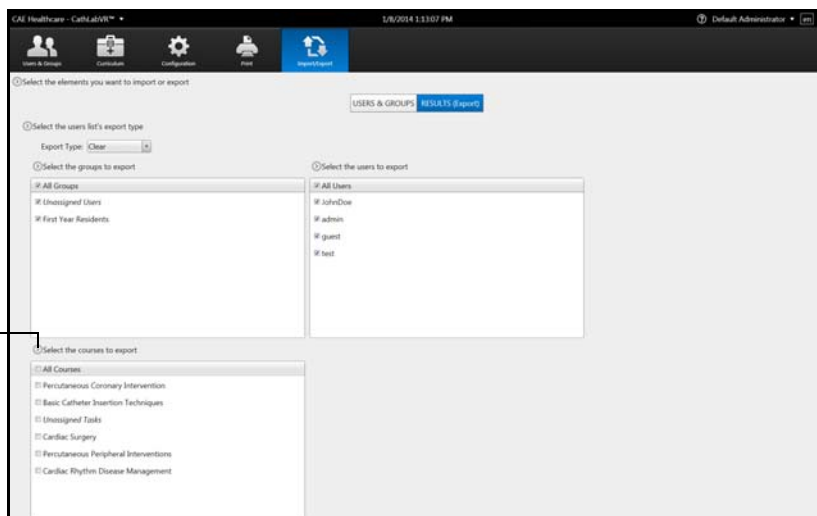
The **Users** options



*The Export Results Screen*

5. Select a user or **All Users** from the **Users** options

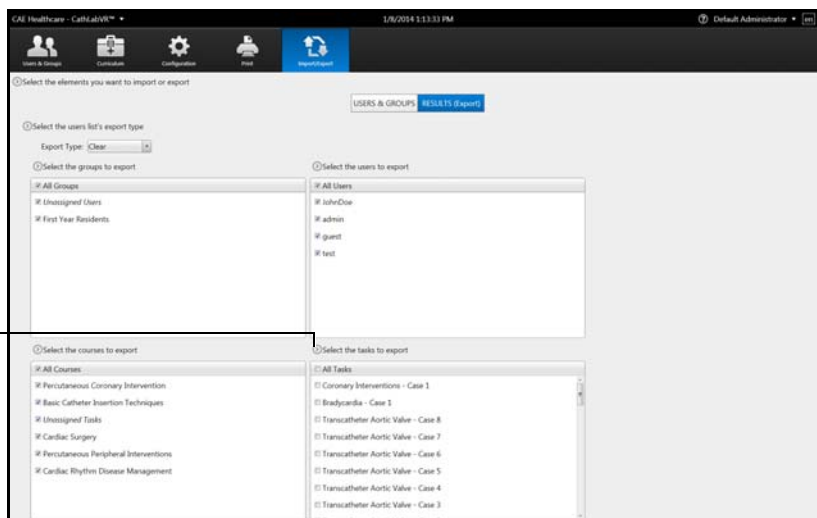
The **Courses** options



*The Export Results Screen*

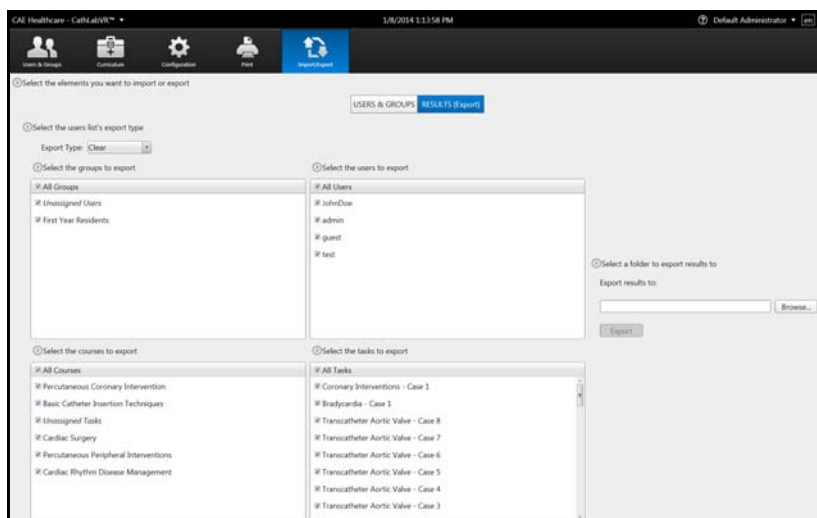
6. Select a course or **All Courses** from the **Courses** options

The **Tasks** options



**The Export Results Screen**

7. Select a task or **All Tasks** from the **Tasks** options

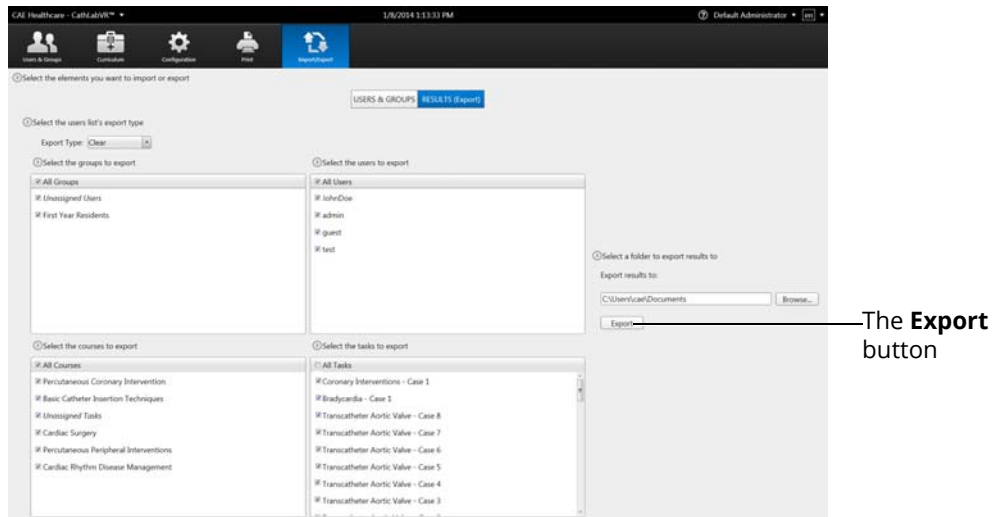


**The Export Results Screen**

The **Browse** button

8. Click **Browse**
9. Select the location where the file will be saved when the exporting is complete
  - Note:** If the location is on an external device, use the USB port located on the back of the simulator to connect the external device to the simulator.
10. Click **Open**

The file name appears in the **Export results to** field.



**The Export Results Screen**

11. Click **Export**



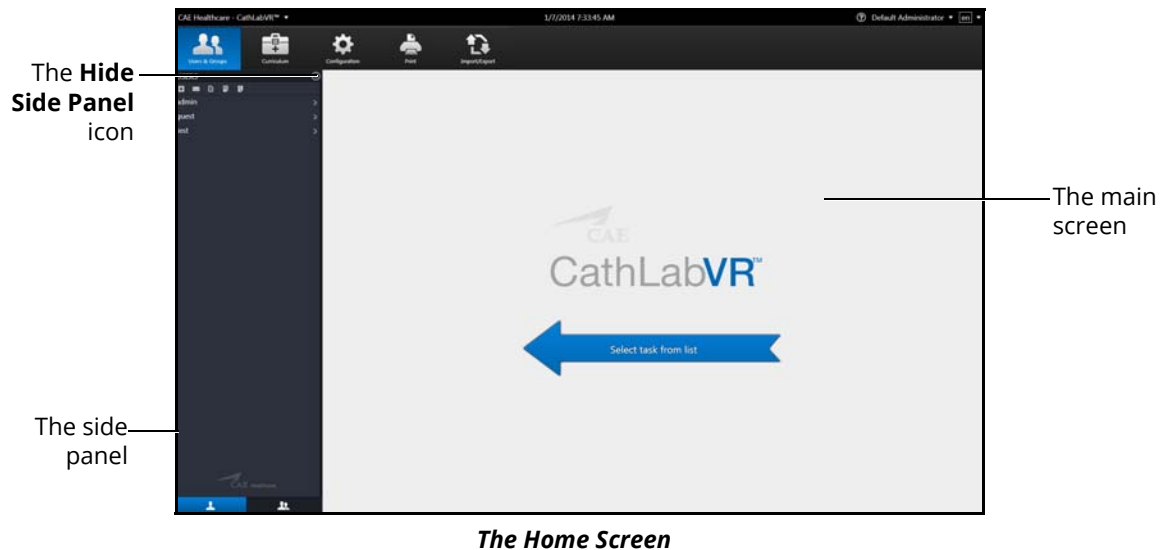
**The Result Export Success Message**

12. Click **OK**



# Hiding the Side Panel

Administrators can hide the side panel to view content in full screen mode.



To hide the side panel:

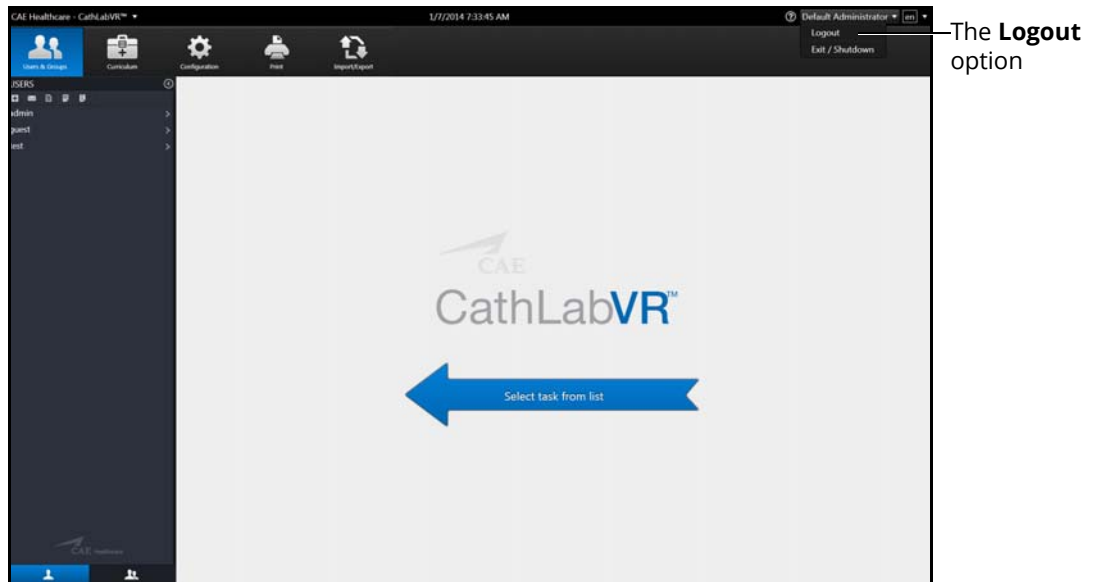
1. From the side panel, select the desired item
2. Click the **Hide Side Panel** arrow

# Exiting the Software

Administrators should always log out of the software once they are finished using the software.

To exit the software:

From any screen, click on the username in the top right corner of the screen.



*The Home Screen with Logout Drop-Down Menu*

3. Select **Logout** from the **Logout** drop-down menu



*The Login Screen*



---

# CARE AND MAINTENANCE

Maintaining the simulator requires careful treatment of the electronic and mechanical components. Each time the simulator is assembled or disassembled, make sure all components are properly handled and correctly removed or placed into storage.

**Note:** No hardware components within the simulator are user serviceable. Consult CAE Customer Service to address any hardware maintenance concerns.

## CAE Assurance Programs

### General Information

CAE patient simulator products come with a one-year Assurance support and maintenance plan. All plans begin at the date of shipment or CAE installation. You may upgrade your first-year plan to an enhanced plan and receive remedial and planned maintenance. To prevent equipment downtime and delays after the plan expires, CAE encourages customers to purchase extended Assurance plans for all subsequent years.

### Units Out of Plan

For units no longer under an Assurance plan that require repairs, the Time and Materials service plan applies. For more information, see *Time and Materials* section of this Care and Maintenance section.

To place an out-of-plan unit under a support and maintenance plan, CAE reserves the right to have the patient simulator inspected by a CAE-approved technician at the customer's expense. If necessary, the unit would have to be repaired at the customer's expense prior to issuance of a plan.

The repairs required as the result of the examination will be quoted on a time and material basis.

### Plan Period

Assurance plans are not ordinarily offered for periods of less than one year. However, multiple-year plans may be arranged for up to an additional three years. Discounts are available for purchase of multiple-year plans.

## Limitations of Plan

Your exclusive remedy for any defective patient simulators is limited to the repair or replacement of the defective patient simulator.

CAE may elect which remedy or combination of remedies to provide at its sole discretion. CAE shall have a reasonable time after determining that a defective material exists to repair or replace the identified defective material. CAE's replacement material will be manufactured from new and/or serviceable parts. CAE's Assurance plan applies to repaired or replaced materials for the balance of the applicable period of the original support and maintenance plan or ninety days from the date of shipment of a repaired or replaced material, whichever is longer. CAE warrants its labor for 30 days or the balance at the applicable period of the original support and maintenance plan, whichever is greater.

CAE shall not be liable under this Assurance plan for incidental or consequential damages, or in the event of any unauthorized repairs or modifications have been made or attempted, or when the product, or any part thereof, has been damaged by accident, misuse or abuse. This plan does not cover normal wear or tear, staining, discoloration or other cosmetic irregularities that do not impede or degrade product performance. Any damage or malfunction as a result of the installation of software or hardware, not authorized by CAE, will be repaired under the Time and Materials service plan (see *Time and Materials* section).

CAE's Assurance plans do not cover products that have been received improperly packaged, altered or physically damaged. Products will be inspected upon receipt.

Some states in the USA do not allow the exclusion or limitations of incidental or consequential damages, so the limitations above may not apply to you. The Assurance plan gives you specific legal rights and you may also have other rights, which vary from state to state.

## Return Materials Authorization (RMA)

No product may be returned directly to CAE without first contacting CAE for an RMA number. If it is determined that the product may be defective, the customer will be given an RMA number and instructions for returning the product. An unauthorized return (e.g., one for which an RMA number has not been issued) will be returned at the customer's expense. Authorized shipments are to be shipped prepaid to the address on the RMA. The original box and packaging materials should be kept for storing or shipping your product. To request an RMA, please contact Customer Service.

## Training for Life™

With CAE's Training for Life, you now have access to free and unlimited beginner to advanced simulator training courses for everyone on your staff with the purchase of a CAE Assurance plan. This benefit extends to everyone in your institution for the life of your simulator. Training for Life offers you the opportunity to refresh your skills, learn current best practices, and ensure you are getting maximum training value from your simulator. Training for Life includes access to all courses taught by our clinical experts and certified technicians.

---

# Support & Maintenance Renewal Program

CAE is committed to providing active and ongoing support for its customers. In an effort to keep simulation programs running smoothly, CAE is proud to offer the Support & Maintenance Renewal Program. This program includes the following services and benefits:

## Extended Support & Maintenance Service Program

- Labor and materials for the repair of CAE products at CAE's facility
- 40% discount on replacement toolkits
- Software updates as they become available
- Loaner simulator provided to customer at the discretion of CAE customer support staff while customer's simulator is repaired at CAE
- Customer support hotline (telephone, fax, or e-mail)
- Freight costs to the CAE service center are not covered. However, CAE bears the return freight costs by the same method as the incoming shipment.
- CAE is not responsible for the risk of loss or damage while the goods are not in the possession of CAE

## Premier Support & Maintenance Service Program

- Labor and materials for the repair of CAE products
- Priority scheduling for onsite repair by the CAE customer support staff
- Customer may receive one EV Generais Cardiovascular Toolkit per year while under support and maintenance
- 40% discount on additional replacement toolkits
- Software updates as they become available
- Loaner simulator provided to customer at the discretion of CAE customer support staff while customer's simulator is repaired at CAE
- Customer support hotline (telephone, fax, or e-mail)
- All shipping and freight costs to and from CAE are covered
- CAE is not responsible for the risk of loss or damage while the goods under support & maintenance are not in the possession of CAE

---

## Premier Plus Support & Maintenance Program

- Provides the same benefits of the Premier Support & Maintenance Program at a discounted rate. This program requires three or more systems with Premier coverage to be eligible for the discount.

### **Please note the following:**

CathLabVR Systems that cannot be supported:

- Version 2.2 or below
- Trade-in options available for systems that cannot be supported

CAE offers an evaluation program for surgical simulators that are not currently covered by a support and maintenance plan. This program costs \$1,000 and includes:

- All shipping and freight costs to and from CAE
- Full system evaluation by a CAE technician
  - Physical inspection and cleaning
  - Functional check of equipment
  - Electrical checks and adjustments as necessary
  - Mechanical inspection and adjustments
  - Repairs/alignments as needed
- Any parts or upgrades needed for repairs will be charged separately.
  - Customer will have 90 days to accept quote.
- Upon completion of evaluation if the system is eligible to reinstate a support and maintenance plan, the \$1,000 paid for the evaluation program will be applied toward the renewal price. Parts and upgrade services cannot be applied.

---

# System Software Upgrade Support

Customers with current support and maintenance plans are entitled to receive updates and upgrades to applications software previously purchased. Installation of the system software is the user's responsibility.

The System Software Upgrade Support includes software upgrades for base software and purchased optional learning modules.

**Note:** This does not apply for major upgrades or technological enhancements.

## Time and Materials

For those systems not under a support and maintenance plan, service will be provided as required on a Time and Materials basis:

The principal period of on-site support (customer's local time) is:

- Monday through Friday, 8:00 AM to 5:00 PM (customer's time zone)
- Holiday and non-business days excluded
- Support outside principal period is billed at the premium rate (hourly rate x 1.5)

A minimum of 48 hours notice is required for scheduling an on-site support call. Urgent on-site support with less than 48 hours notice will be charged at the premium hourly rate.

On-site time is described as the time period commencing from arrival at customer site through departure from customer site.



---

## How to Contact Customer Service

For customer service, please contact CAE.

### CAE Customer Service Headquarters - United States and Latin America

Monday - Friday from 7:00 a.m. to 6:00 p.m. ET  
Toll Free:+1 (866) 462-7920  
24-hour Hotline:+1 (941) 342-5605  
Fax:+1 (941) 342-5600  
Email:customerservice@caehealthcare.com  
Website: www.caehealthcare.com

### CAE Customer Service - Canada

Monday - Friday from 8:00 a.m. to 5:00 p.m. ET  
Toll Free:+1 (877) 223-6273  
Email:can.service@caehealthcare.com

### CAE Customer Service - Europe, Middle East and Africa

Monday - Friday from 8:00 a.m. to 5:00 p.m. CET  
Phone:+49-(0) 6131 4950354  
Fax:+49 (0) 6131 4950351  
Email:international.service@caehealthcare.com

### CAE Customer Service - United Kingdom and Ireland

Monday - Friday from 9:00 a.m. to 5:00 p.m. GMT  
Phone:+44(0)800-917-1851  
Email:uk.service@caehealthcare.com

**Note:** Principal hours of operation exclude holidays and non-business days.

**IMPORTANT:** *Technical and clinical phone support are available ONLY for products with active support and maintenance plans.*

# FREQUENTLY ASKED QUESTIONS

The following tables describe some common user questions and solutions for the CathLabVR simulator.

## Software Questions

**Why do I receive the message, "Please Remove the Current Tool" when attempting to select a tool from the Tools menu?**

This message indicates that the "carriage" that captures that tool is not in the 'home' position, or already has a tool, (or something else), inside it.

If you are using the simulator for the 1st time, confirm that the shipping restraint has been removed from the carriages and restart the simulation. For more information, see the Setup section of this Admin Guide. Restarting the simulation module and case should cause all carriages to return to the 'home' position.

If there is no tool in the carriage, open the lid of the device and confirm that the carriage in question is in the 'home' position. The 'home' position is to the far right of the device, in contact with the carriage preceding it, or, (in the case of carriage 1, against the far right of the device). If the carriage is not in the 'home' position, restart the simulation and case. This should automatically return all carriages to the 'home' position.

If a tool is present in the carriage, withdraw it until it reaches 'home' and continue to pull GENTLY on the tool, keeping it in the 'home' position while using the "No Tool" command, to de-select the tool.

If the carriage is in the 'home' position, no tool is captured within the carriage, and you have restarted the simulation, and continue to get the "Please Remove the Current Tool" message, there may be a piece of broken tool/wire within the carriage, or, the simulator is not recognizing when the carriage is 'home'.

**Why isn't the simulator capturing my tools when I insert them?**

**The tool is damaged, is not entering carriage capture mechanism, or the capture mechanism is not functioning.**

Verify that the tool has been selected within the simulation software. Tools must be selected prior to insertion, so that the SmartCapture™ mechanism will know which carriage should 'capture' the incoming tool.

If the tool appears not to capture within the carriage, attempt to twist and advance the tool, multiple times, if necessary. The tip of the tool may be 'catching' on the transition 'funnel' at the entrance of each carriage. This occurs especially when the tool is curved or bent).

If multiple attempts fail to capture, remove the tool and inspect it to verify that the tool is not bent, broken or kinked. Even small curves/kinks may prevent the tool from capturing successfully in the device. Re-test capture with a new/undamaged tool. If this new tool fails to capture;

Open the lid of the CathLabVR™ device and inspect the carriage where the wire/tool is to be captured. If the carriages are not in their 'home' positions, (see above), they cannot open and capture a tool. Manually slide the carriage until it is in contact with the carriage to its right or against the far right of the device, ('home' position), and try to insert/capture the tool again. Note that between carriages #3 and #4 there is a "guide tube" to help direct the guide wire into carriage #4. If this tube is bent/damaged, the wire may not be able to enter carriage #4. If this occurs, please contact CAE for assistance.

If the tool is inserted into the carriage properly and slowly, and the carriage does not attempt to capture the wire/tool, exit the simulation and reselect the module.

## Hardware Questions

Why can't I remove the wire/tool from the simulator?	
<p><b>The carriage capture mechanism has malfunctioned.</b></p>	<p>Make sure that the tool has been “de-selected” by going to the appropriate tool menu and selecting “NoTool”. Remember that if several “No Tool” choices are available, the “No Tool” beneath the dialog box where the tool was chosen must be selected to release the tool.</p> <p>If the tool was “de-selected”, as above, and still does not release, end and quit the case by selecting “Exit”, (lower right corner of right simulation screen). This will return the software to the CAE ‘desktop’. Carriages should automatically release all tools and return to ‘home’ position.</p> <p>If this fails to release the tool, turn off the power to the CathLabVR™ device. Turn the power back on while applying GENTLE traction to the wire/tool.</p> <p>If this still fails to release the tool, open the lid of the CathLabVR™ device. Identify the carriage that is ‘holding’ the tool. Make sure that the ‘release lever’ is in the up, (no tool captured), position.</p> <p>If the lever is not up, carefully raise the lever, using your fingers. This should release the tool. It is possible that another, more proximal carriage has accidentally captured the tool. Inspect and make sure all of the carriages have the release lever in the up position.</p> <p>If none of the maneuvers described above allow the stuck tool to be removed, please contact CAE Customer Service.</p>

Why doesn't the Fluoro or Cine features work when I step on the foot pedals?	
<p><b>The foot pedal cable may be plugged into incorrect connector port.</b></p>	<p>Verify that foot pedal cable is inserted into Foot Pedal port “A”.</p>

<b>Why aren't the instrumented tools functioning properly/at all?</b>	
<p><b>The tools are not plugged-in properly, not recognized by the software or broken.</b></p>	<p>If any "instrumented" tools are not working properly/at all, first verify that they are connected to their proper accessory connector. Once the tool location has been verified, and the tool properly connected, re-test the tool in a simulation case.</p> <p>If the above steps do not correct the instrumented accessory tool function, the tool itself may be broken. If possible, replace with another instrumented tool, and return the defective tool to CAE.</p>
<b>Why isn't the speaker working?</b>	
<p><b>The speaker is not plugged in, is broken or volume turned down/muted in software.</b></p>	<p>Verify that sound bar is plugged in to proper connection on back of CPU and is connected to power source. Be sure volume is turned ON!</p> <p>Using the "Windows" key, or from the desktop, selecting the Start Menu &gt; My Computer &gt; Control Panel, select Speaker Volume and make sure volume is high enough, and not muted.</p> <p>If speaker is properly connected and software enabled, (volume high and not muted), speaker may be broken. In this case, contact CAE Customer Service to return speaker for instructions on returning the speaker for repair/replacement.</p>
<b>Why won't the tools enter the simulator when using gentle pressure?</b>	
<p><b>The tool is not entering carriage, is not selected in software, or there is a carriage/ "SmartCapture™" malfunction.</b></p>	<p>Make sure the tool has been selected in the software. Ensure that the tool has no kinks, bends or breaks. If it is damaged, replace with an undamaged tool. If the tool is in good working order, gently rotate it while inserting it into the device. This gentle rotation should facilitate tool insertion into the device.</p> <p>If the tool will not enter the device after following Steps 1 and 2 above, please contact CAE Customer Service.</p>

# APPENDIX A - MODULE DESCRIPTIONS

The CathLabVR simulator contains several modules for learners to practice performing endovascular procedures using different techniques and tools. Modules are bundled in four separate categories: Cardiac Rhythm Disease Management, Cardiac Surgery, Percutaneous Coronary Intervention and Percutaneous Peripheral Interventions.

The following table outlines the categories and modules offered for the CathLabVR simulator.

Category	Module	Description
Cardiac Rhythm Disease Management	Bradycardia	Complete common tasks involved in resolving bradycardia in a patient.
	Cardiac Resynchronization Therapy	Complete common tasks involved in cardiac resynchronization therapy.
Cardiac Surgery	Transcatheter Aortic Valve	Complete common tasks associated with a transcatheter aortic valve intervention (TAVI).
Percutaneous Coronary Intervention	Coronary Interventions	Complete common tasks associated with a basic coronary intervention.
	Coronary Interventions (Advanced)	Complete common tasks associated with an advanced coronary intervention.
Percutaneous Peripheral Interventions	Carotid Interventions	Complete common tasks associated with a basic carotid intervention.
	Carotid Interventions (Advanced)	Complete common tasks associated with an advanced carotid intervention.

## Module Instruments and Required Equipment

In each of the modules, different instruments and features are used to complete the selected task.

### Cardiac Rhythm Disease Management (CRDM)

The Cardiac Rhythm Disease Management (CRDM) modules give learners an opportunity to practice and master techniques required to perform a CRDM corrective procedure.

Module	Available Instruments	Available Features
<b>Bradycardia</b>	<ul style="list-style-type: none"> <li>• Catheters</li> <li>• Lead</li> <li>• Wire</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Analyzer</li> <li>• Lead Fixation</li> <li>• Custom Wire</li> </ul>
<b>Cardiac Resynchronization Therapy</b>	<ul style="list-style-type: none"> <li>• Catheters</li> <li>• Lead</li> <li>• Wire</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Analyzer</li> <li>• Fixate Lead</li> <li>• Customize Wire</li> </ul>

### Cardiac Surgery

The Cardiac Surgery modules give learners an opportunity to practice and master techniques required to perform a transcatheter aortic valve corrective procedure.

Module	Available Instruments	Available Features
<b>Transcatheter Aortic Valve</b>	<ul style="list-style-type: none"> <li>• Catheters</li> <li>• Wire</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Customize Wire</li> </ul>

### Percutaneous Coronary Interventions (PCI)

The Percutaneous Coronary Interventions (PCI) modules give learners an opportunity to practice and master techniques required to perform basic and advanced PCI procedure.

Module	Available Instruments	Available Features
<b>PCI: Coronary Interventions</b>	<ul style="list-style-type: none"> <li>• Guidewire</li> <li>• Catheters</li> <li>• Balloon</li> <li>• Stent</li> <li>• Embolic Protection</li> <li>• Aspirate</li> <li>• Adjunct Therapy</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Customize Guidewire</li> <li>• Customize Embolic Protection</li> </ul>
<b>PCI: Advanced Coronary Interventions</b>	<ul style="list-style-type: none"> <li>• Guidewire</li> <li>• Catheters</li> <li>• Balloon</li> <li>• Stent</li> <li>• Embolic Protection</li> <li>• Aspirate</li> <li>• Adjunct Therapy</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Customize Guidewire</li> <li>• Customize Embolic Protection</li> </ul>



## Percutaneous Peripheral Interventions (PPI)

The Percutaneous Peripheral Interventions (PPI) modules give learners an opportunity to practice and master techniques required to perform a basic and advanced PPI procedure.

Module	Available Instruments	Available Features
<b>PPI: Carotid Interventions</b>	<ul style="list-style-type: none"> <li>• Guidewire</li> <li>• Catheters</li> <li>• Balloon</li> <li>• Stent</li> <li>• Embolic Protection</li> <li>• Aspirate</li> <li>• Adjunct Therapy</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Customize Guidewire</li> </ul>
<b>PCI: Advanced Carotid Interventions</b>	<ul style="list-style-type: none"> <li>• Guidewire</li> <li>• Catheters</li> <li>• Balloon</li> <li>• Stent</li> <li>• Embolic Protection</li> <li>• Aspirate</li> <li>• Adjunct Therapy</li> </ul>	<ul style="list-style-type: none"> <li>• Fluoro</li> <li>• Customize Guidewire</li> </ul>

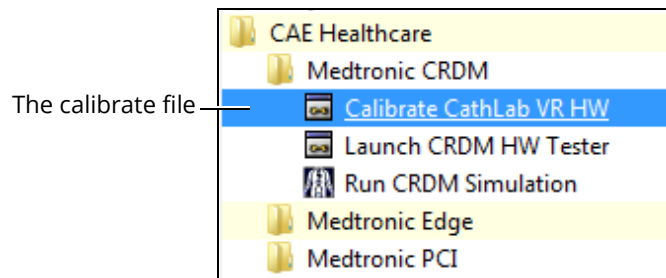
# APPENDIX C - UPGRADE INSTRUCTIONS AND EMBEDTEK COMPUTER SPECIFICATIONS

## Medtronic CathLab VR™ Upgrade instructions

Proper operation of the simulator requires correct configuration. Follow this sequence of the steps to upgrade the Medtronic CathLab VR system software from a Windows® XP computer to a Windows® 7 computer.

To connect a Windows 7 computer (that has upgraded Medtronic CathLab VR software) with an existing CathLab VR device:

1. Turn the computer ON
2. Connect the computer to the CathLab VR device with a USB cable
3. Connect the CathLab VR device to a power outlet
4. Turn the CathLab VR device ON
5. Start Calibration of CathLab VR HW:
  - a. From the computer, select *Start > All Programs > CAE Healthcare > Medtronic CRDM > Calibrate CathLab VR HW*



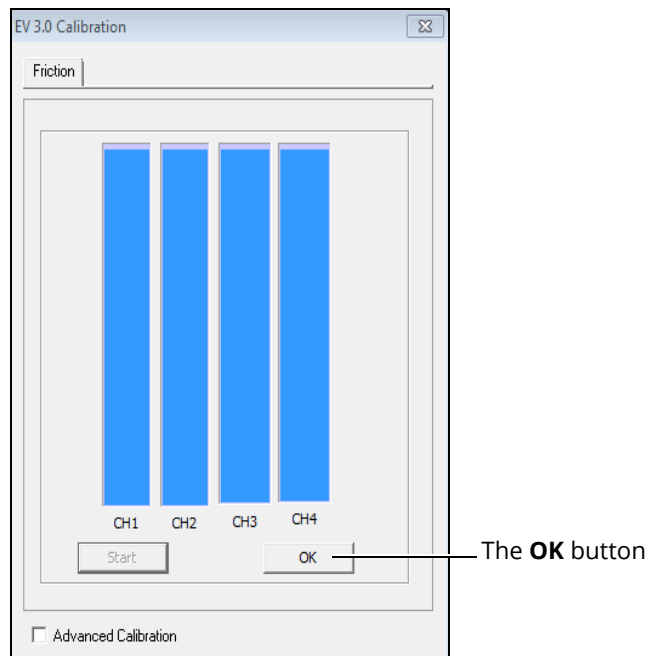
***The File Location***

b. Click **Start** on the EV 3.0 calibration screen to start friction calibration



**The Calibration Window**

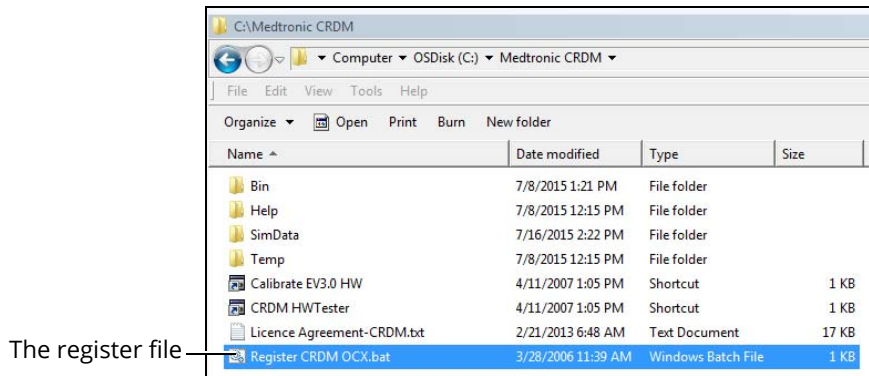
c. Click **OK** when the calibration is complete



**The Calibration Window**

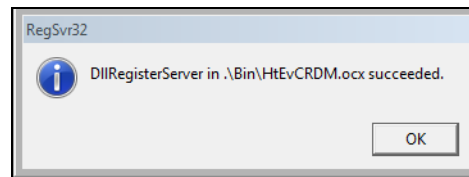
- 6. Register **OCX**:
  - a. From the computer, open the C:\Medtronic **CRDM** folder

b. Double-click the file **Register CRDM.OCX.bat** to run the register



***The Register File***

c. Click **OK** when the register is complete and succeeded



***The Succeeded Window***

Repeat the same steps for **PCI** and **EDGE** products.

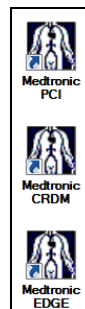
For PCI:

- a. From the computer, open the *C:\Medtronic PCI* folder
- b. Double-click the file **Register PCI.OCX.bat** to run the register
- c. Click **OK** when the register is complete and succeeded

For EDGE:

- a. From the computer, open the *C:\Medtronic EDGE* folder
- b. Double-click the file **Register EDGE.OCX.bat** to run the register
- c. Click **OK** when the register is complete and succeeded

To run Medtronic, click the PCI, SRDM, or EDGE icon on the computer desktop.



***The Icons***

### Embedtek Tower Workstation Specifications:

- Dimensions
  - 17" H x 6.75" W x 18.36" D (43.2 cm H x 17.2 cm W x 46.6 cm D)
- Weight
  - 19 lbs (8.6kg)
- C226 Embedded ATX Motherboard
  - Super Micro X10SAE
  - 2 Open PCI slots
  - 1 Gen3 PCIe16 slot
  - 6 USB 2.0 (4 front, 2 rear)
  - 4 USB 3.0 (rear)
- CPU
  - Intel i7 4770
  - 3.4 GHz
  - 4 Cores
  - 8 Threads
  - 8 MB cache
- 16 GB Ram (only 4 GB usable on 32 Bit OS)
- Video Card
  - Nvidia GTX770 w/4 GB
  - EVGA 02G-P4-2270-KR
- Hard Drive
  - 1 TB
  - 7200 RPM
  - SATA 6.0 Gb/s
  - 64 MB Cache
  - 3.5"
- Windows 7 Professional 32 Bit
- Power Supply
  - Seasonic SS600ES
  - 600 Watts





[caehealthcare.com](http://caehealthcare.com)

For more information about CAE products, contact your regional sales manager or the CAE distributor in your country, or visit [caehealthcare.com](http://caehealthcare.com).

Tel +1 941-377-5562 or 866-233-6384

For customer service, please contact CAE.

**Customer Service Headquarters - United States and Latin America**

Monday - Friday from 7:00 a.m. to 6:00 p.m. ET

Phone 1-866-462-7920

Email: [customerservice@caehealthcare.com](mailto:customerservice@caehealthcare.com)

**Customer Service - Canada**

Monday - Friday from 8:00 a.m. to 5:00 p.m. ET

Phone 1-877-223-6273

Email: [can.service@caehealthcare.com](mailto:can.service@caehealthcare.com)

**Customer Service - Europe, Middle East, Africa, India, Asia and Australia**

Monday - Friday from 8:00 a.m. to 5:00 p.m. CET

Phone +49 (0) 6131 4950354

Email: [international.service@caehealthcare.com](mailto:international.service@caehealthcare.com)

**Customer Service - United Kingdom and Ireland**

Monday - Friday from 9:00 a.m. to 5:00 p.m. GMT

Phone +44 (0)800-917-1851

Email: [uk.service@caehealthcare.com](mailto:uk.service@caehealthcare.com)