Tech Support – an Actual E-mail from a "Baby-Boomer" Friend

- I feel like I signed up to take a Calculus course, but never took pre-algebra...so no amount of studying, reading, or reviewing manuals helps…. the words are in English (well…except words like Ethernet which I am certain does not appear in the English language!) but the combinations of words are meaningless. I am sure the user manuals are written and tech support staff speaks in code to thwart insurgents…..I must be cast in the role of insurgent because I sure can't interpret their meaning!
- I was doing all the changing with 13 year old tech support providing "voice commands." Of note: tech support staff all use those surreal calm voices we learned to use with Mental Health clients to prevent (us from) becoming violent...

Quest for Understanding Technology

By:
Chuck Simon
Janice Sarasnick RN, MSN

Where are you

- Beginner-Turn on/turn off
- Intermediate-I have seen inside the mannequin & can troubleshoot.
- Advance-I speak technologese

Introductions

- Chuck Simon
  - Simulation Technician
  - AKA the Great OZ
- Janice Sarasnick RN, MSN –
  - Assistant Clinical Nursing Professor
  - Simulation Faculty

Disclosure

- We have been fortunate enough to experience a variety of simulation equipment. We do not endorse nor do we receive monetary compensation from any company discussed in today's presentation.

Objectives

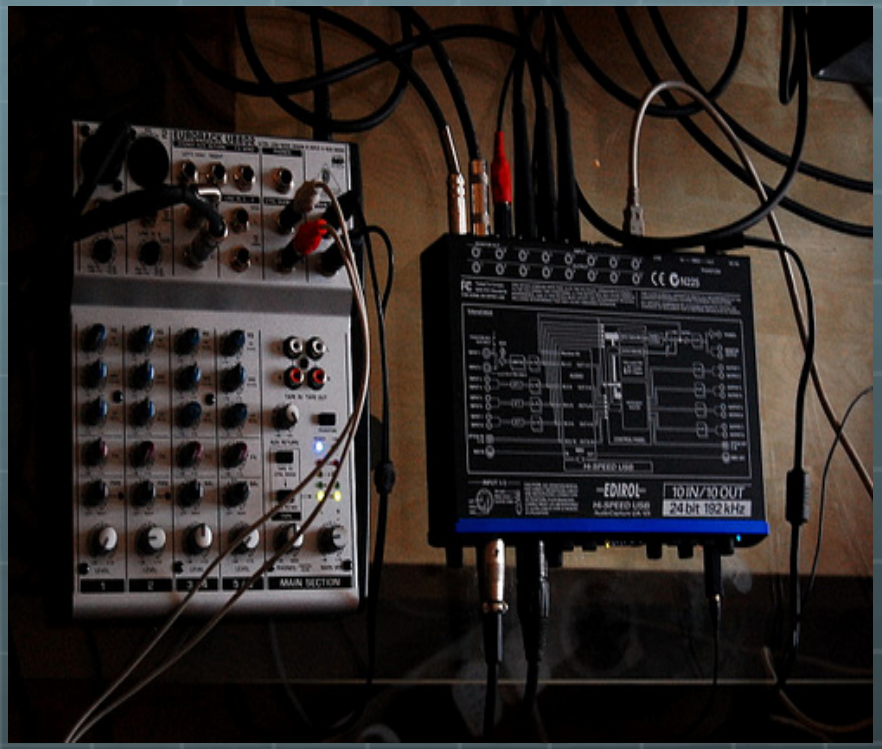
- Illustrate the need for incorporating innovative ideas into teaching strategies.
- Discuss cost factors.
- Discuss equipment, functions of the equipment, basic set-up, and operation of the equipment.
- Demonstrate use of technology in the classroom setting.

Objectives

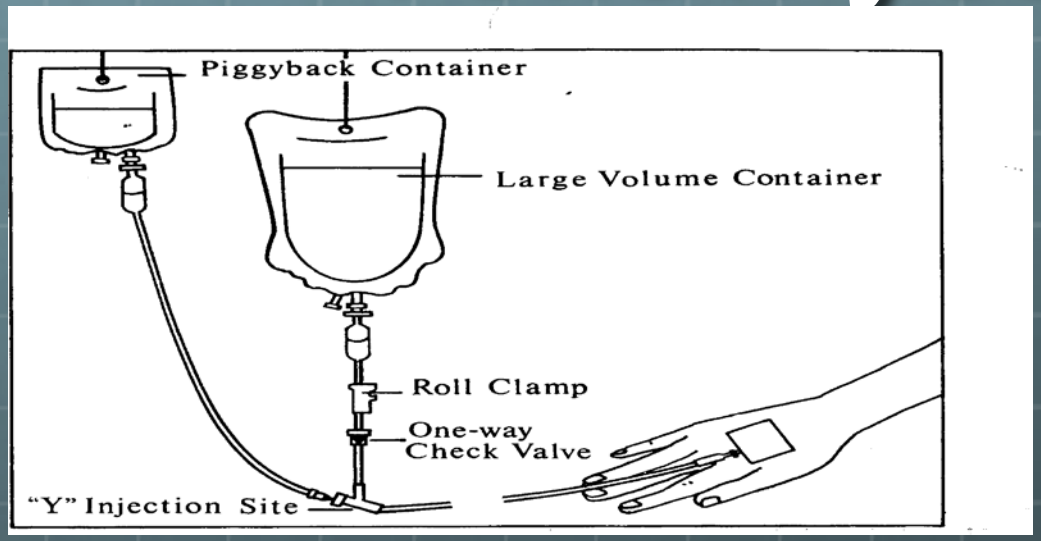
- Sharing ideas, thoughts, and creative uses of technology used in your institutions as well.

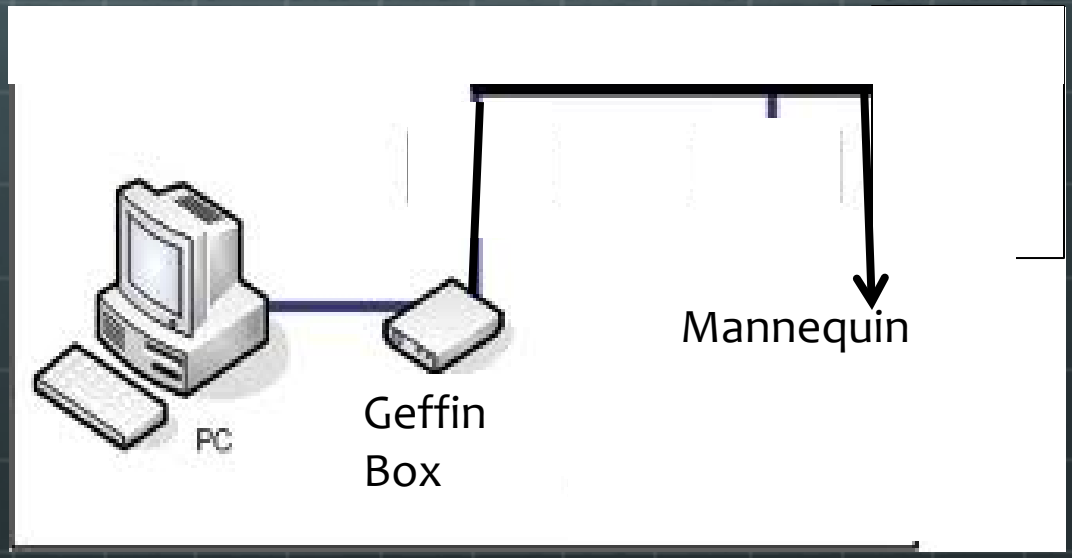
If we can do this

We can do this.



Follow your lines





Cables

- Types of cables
- Connection
- Use

Ethernet cable


LAN
POWER
DC Input 12-24V Max

USB

Audio Connection

RCA

Used With Audio Mixer

XLR – Audio Mixer

Phone Plugs

Audio Connection

Audio Connection (Headphones)

Network

- Involve your IT department from the beginning.
- Do you have a technology service located within your facility? Make friends.

Network

- Network Structure
- Wireless
- Hardwire = stability
- IP addresses - Sub-net

  Security

  Stability

  Speed

Operating System

- Know your basic function

Software

- All on one computer
- Updating software
  - Mannequin
  - Drivers
  - Monitors
  - *When in doubt option to begin again… restart computer.

Auxiliary Devices

- Headphones
- Converter
- Amplifiers
- Microphones

Headphone Distribution Amp

Audio/Visual Converter (Geffin Box)

Improving Voice Quality

Improving Voice Quality

Problem Solving Philosophy

- Know schematics
- Document common problems
- Communication is key
- Classes on networks, basic computer terminology, helps with communication

Sherlock Holmes Once Said

- "When you have eliminated the impossible, whatever remains, *however improbable*, must be the truth."

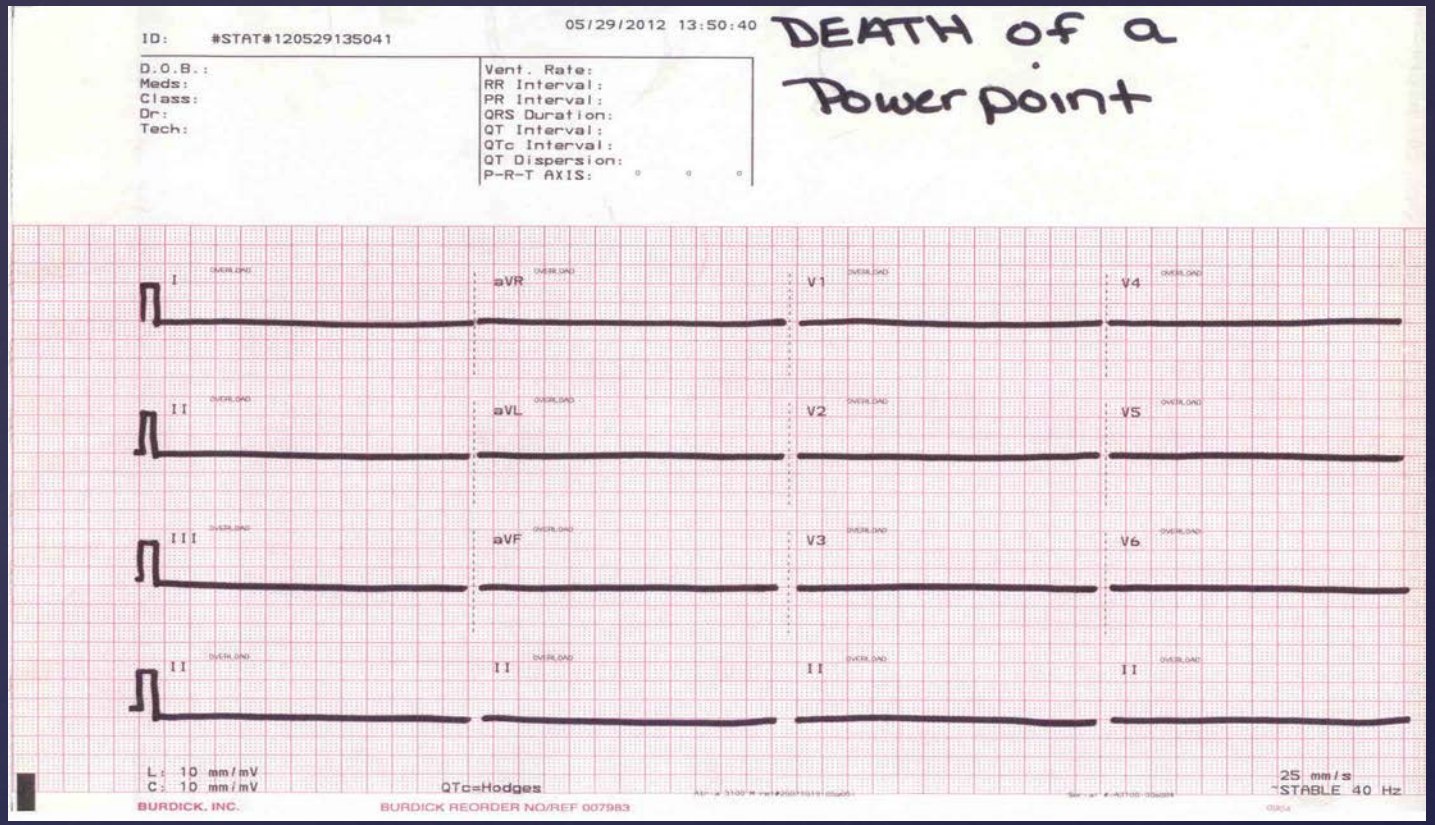
Educating with Technology

{ It's all in the presentation

Arrhythmia Recognition

- Had Harvey and all of the beautiful arrhythmias on Laerdal software
- How to mesh the 2.

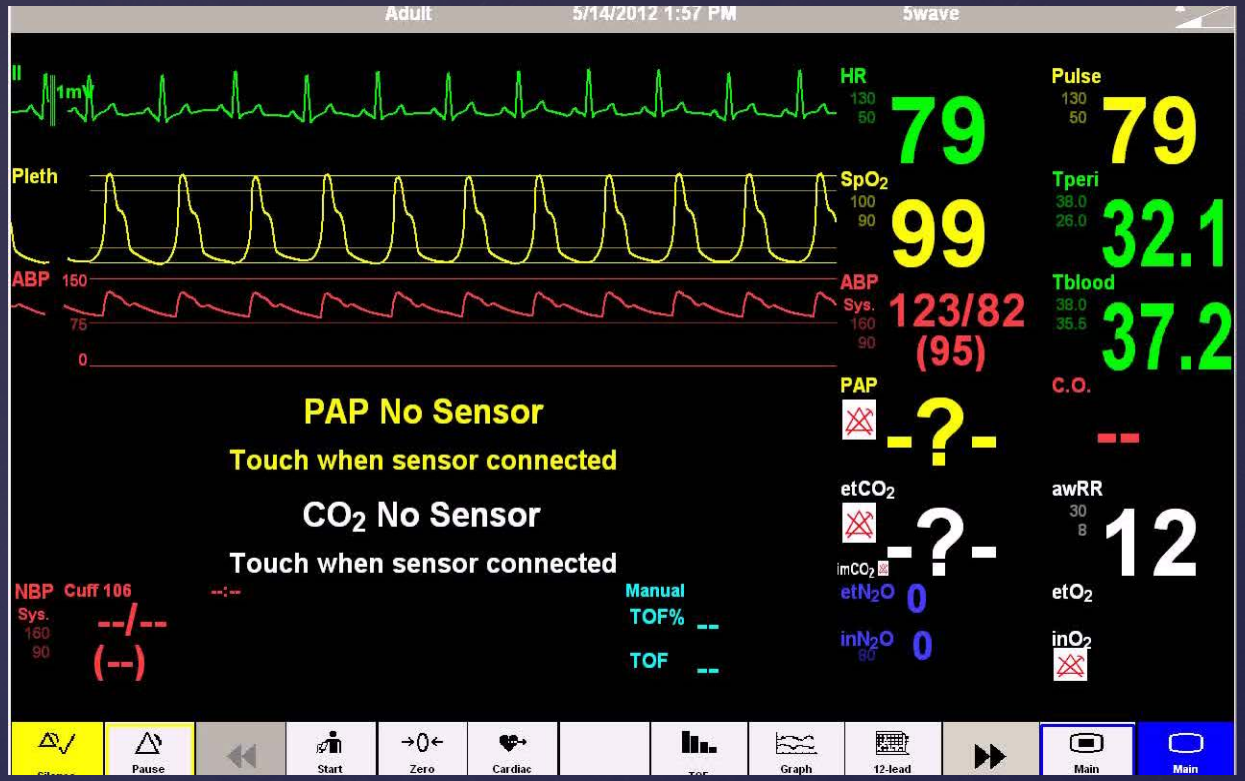
- **I know Hey Chuck can we…



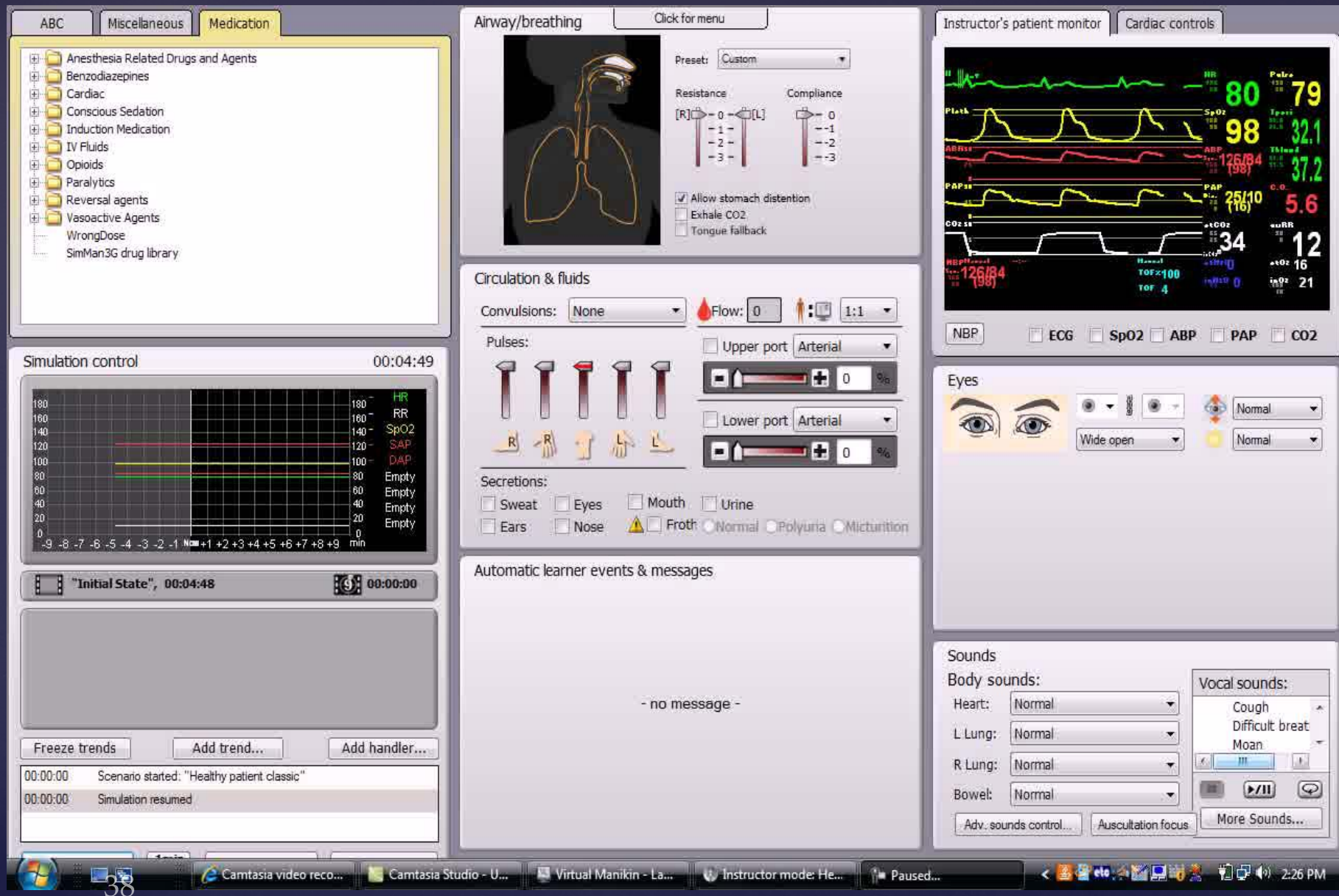
Old Objectives-Arrhythmia Recognition

New Objectives

- Recognize the arrhythmia and the implications this has on the patient status.
- Knowledge – Senior residents had arrhythmia recognition course. Ready for advance.
- Skill – more than just interpretation of the patient status. Apply whether patient is stable or not and differential DX. Options.
- Attitude – Immersed in clinical context.



The Whole Picture


ABC
Miscellaneous
Medication
Anesthesia Related Drugs and Agents
Benzodiazepines
Cardiac
Conscious Sedation
Induction Medication
IV Fluids
Opioids
Paralytics
Reversal agents
Vasoactive Agents
WrongDose
SimMan3G drug library
Airway/breathing
Click for menu
Preset: Custom
Resistance
Compliance
Allow stomach distention
Exhale CO2
Tongue fallback
Circulation & fluids
Convulsions: None
Flow: 0
1:1
Pulses:
Upper port Arterial
Lower port Arterial
Secretions:
Sweat
Eyes
Mouth
Urine
Ears
Nose
Froth
Normal
Polyuria
Micturition
Automatic learner events & messages
- no message -
Instructor's patient monitor
Cardiac controls
NBP
ECG
SpO2
ABP
PAP
CO2
Eyes
Normal
Wide open
Normal
Sounds
Body sounds:
Heart: Normal
L Lung: Normal
R Lung: Normal
Bowel: Normal
Vocal sounds:
Cough
Difficult breat
Moan
Adv. sounds control...
Auscultation focus
More Sounds...
Simulation control
00:04:49
HR
RR
SpO2
SAP
DAP
Empty
Empty
Empty
Empty
min
"Initial State", 00:04:48
00:00:00
Freeze trends
Add trend...
Add handler...
00:00:00 Scenario started: "Healthy patient classic"
00:00:00 Simulation resumed
Camtasia video reco...
Camtasia Studio - U...
Virtual Manikin - La...
Instructor mode: He...
Paused...
2:26 PM

Equipment Required

- VGA Cable
- Ethernet
- Laerdal 3G© Instructor Monitor with software
- Laerdal 3G© Patient Monitor with software
- IP Address
- Podium with projector attached
- Audio input/output for affects.

Step 1

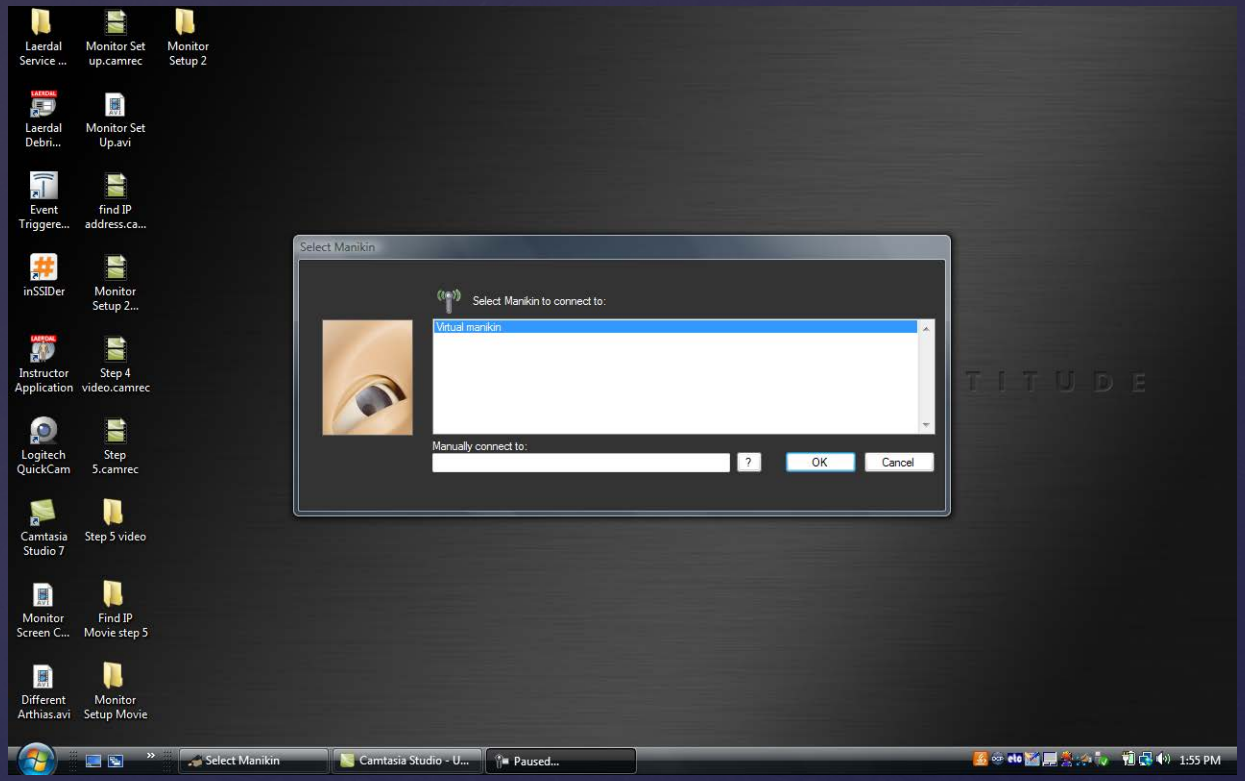
- 2 laptops
- One with Laerdal SimMan Instructor Application
- Second laptop with the Laerdal SimMan Monitor Software Application.

Step 2 – Connect to Projector

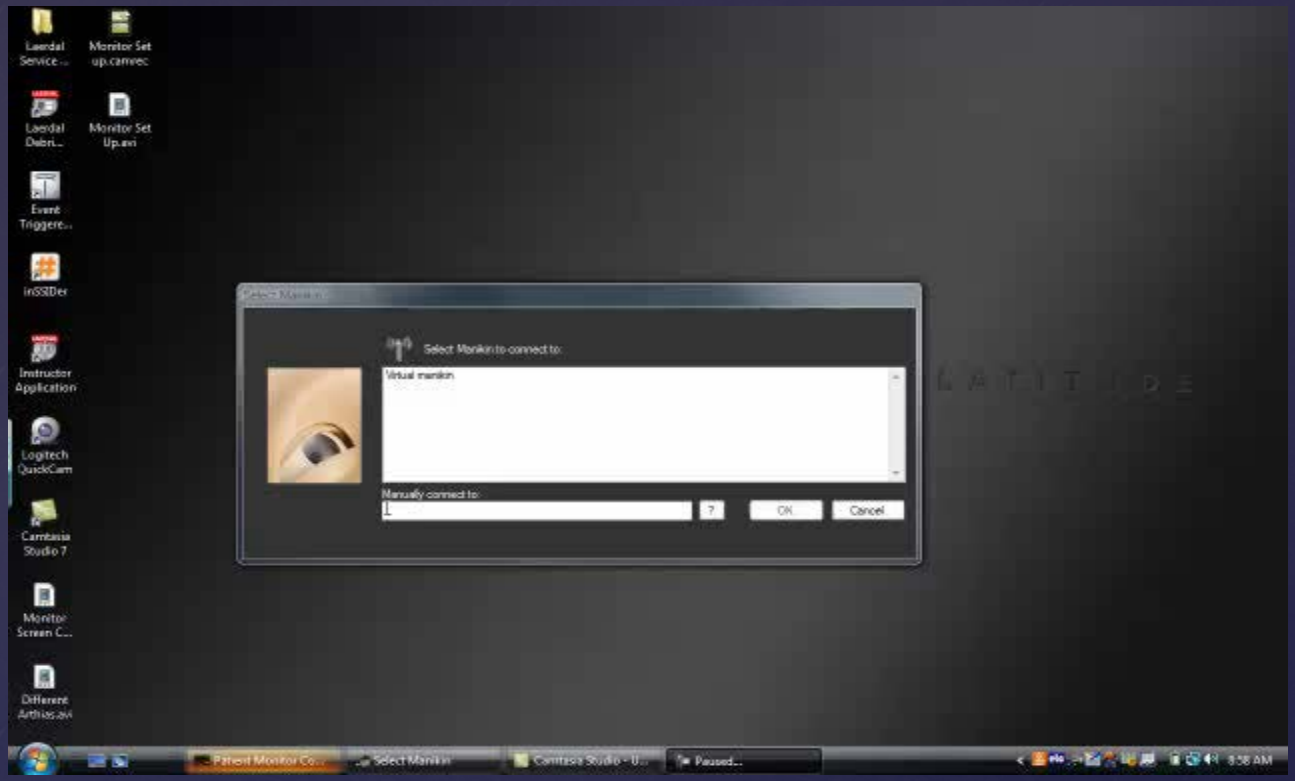
VGA cable

Step 3 – Connect the 2 laptops

Ethernet



Step 4–Select Virtual Manikin

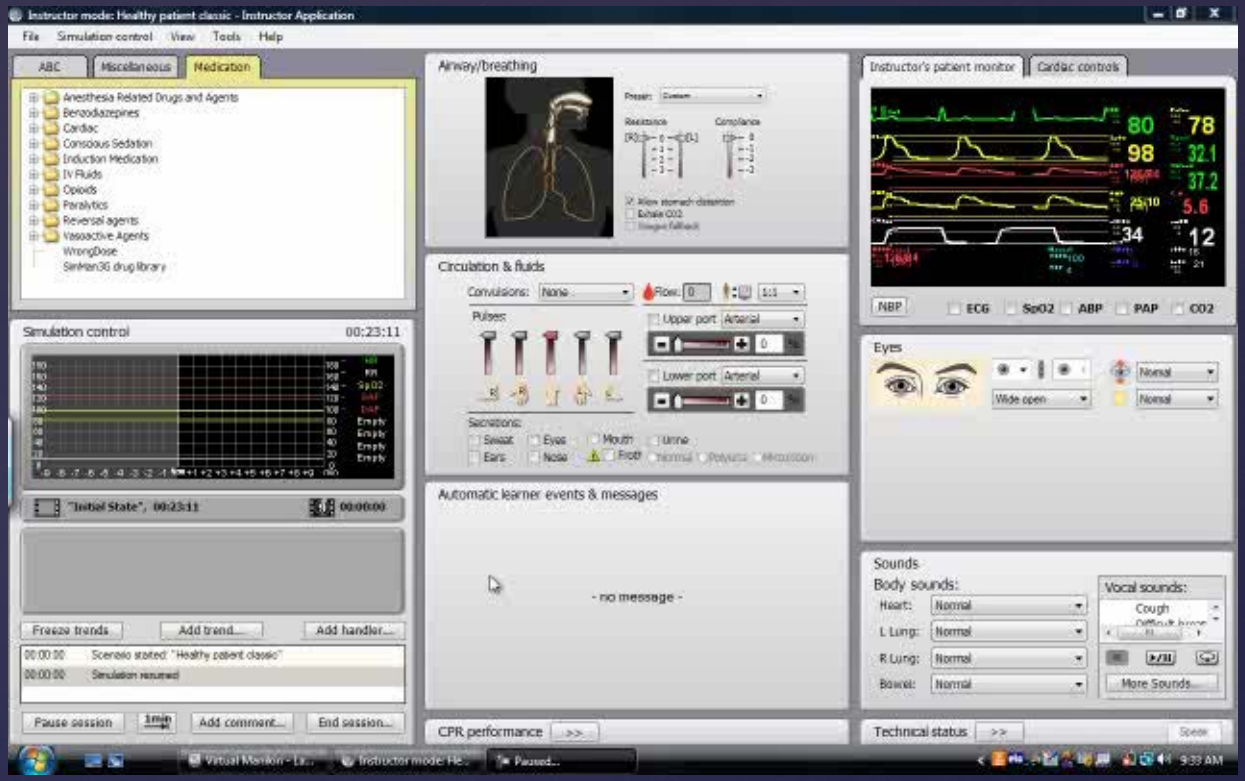


Step 5–Start Monitor Application Process

Step 5 - IP Address

Step 6

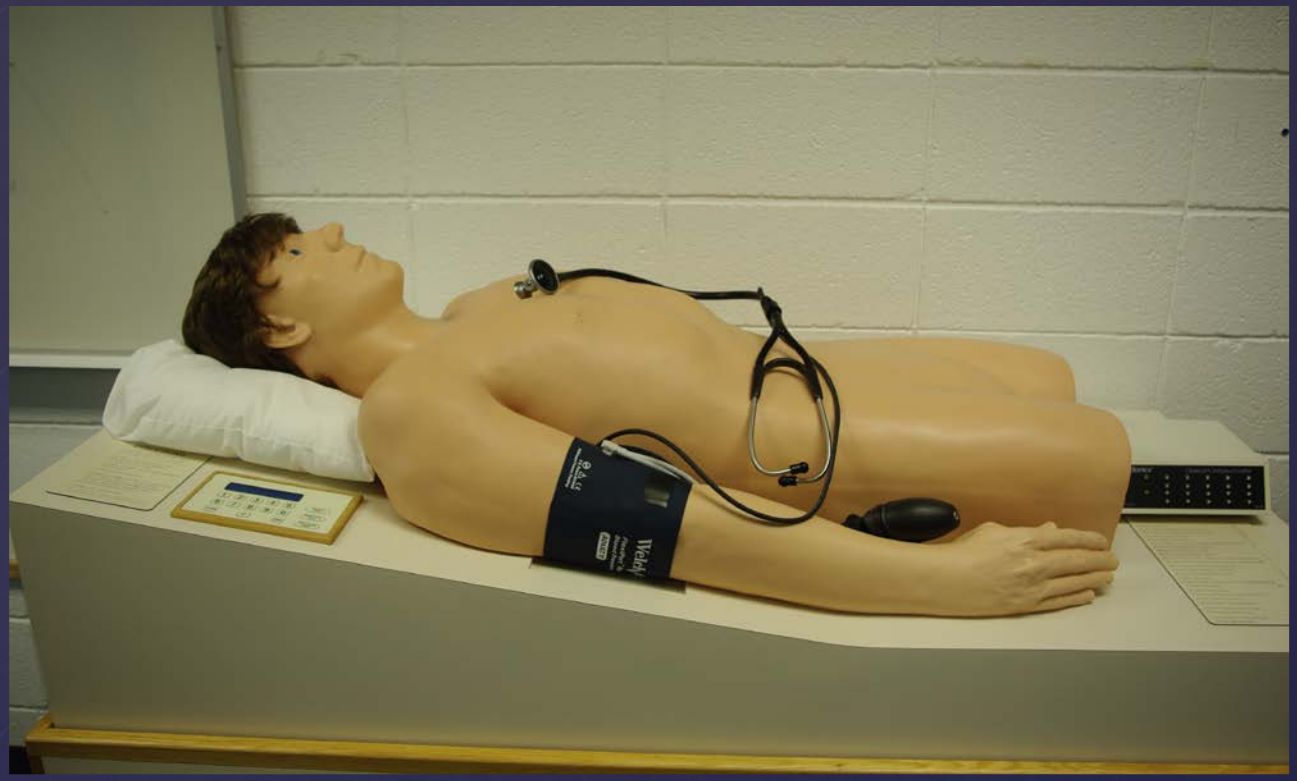
- Now your instructor application laptop will control your monitor.
- Learners will be unable to see what you are doing as the instructor.



Step 7–Changing the Monitor

- Harvey
- Vital Sims
- Ventriloscope
- 3G

Enhancing Projects



Use of Harvey

Ventriloscope

Use of Ventriloscope

- Same as Harvey, however also includes heart sounds and more lung sounds.
- Lose the ability for students to hear WHERE there heart sounds will be louder.
- $7,500 vs. $85,000. Grants help cover the cost.
- Ventriloscope also can be used with standardized patients.

New Leaner/Basic

- SWBAT:
- Differentiate arrhythmias
- Interpret need for intervention

Advance Learner

- MD, PA, NP, Advance RN
- SWBAT
- Differentiate arrhythmias as they occur in the clinical setting.
- Interpret intervention.
- Recognize heart sound that correlates with condition.

Problem Based Learning

- Case study on Steroids.
- Constructivism.
- More immersion into the problem (case study).

Taking Simulation on The Road

What we learned in our travels across town

Meetings

Location Verification

IT Set-up

Equipment Needed

Simple & Effective

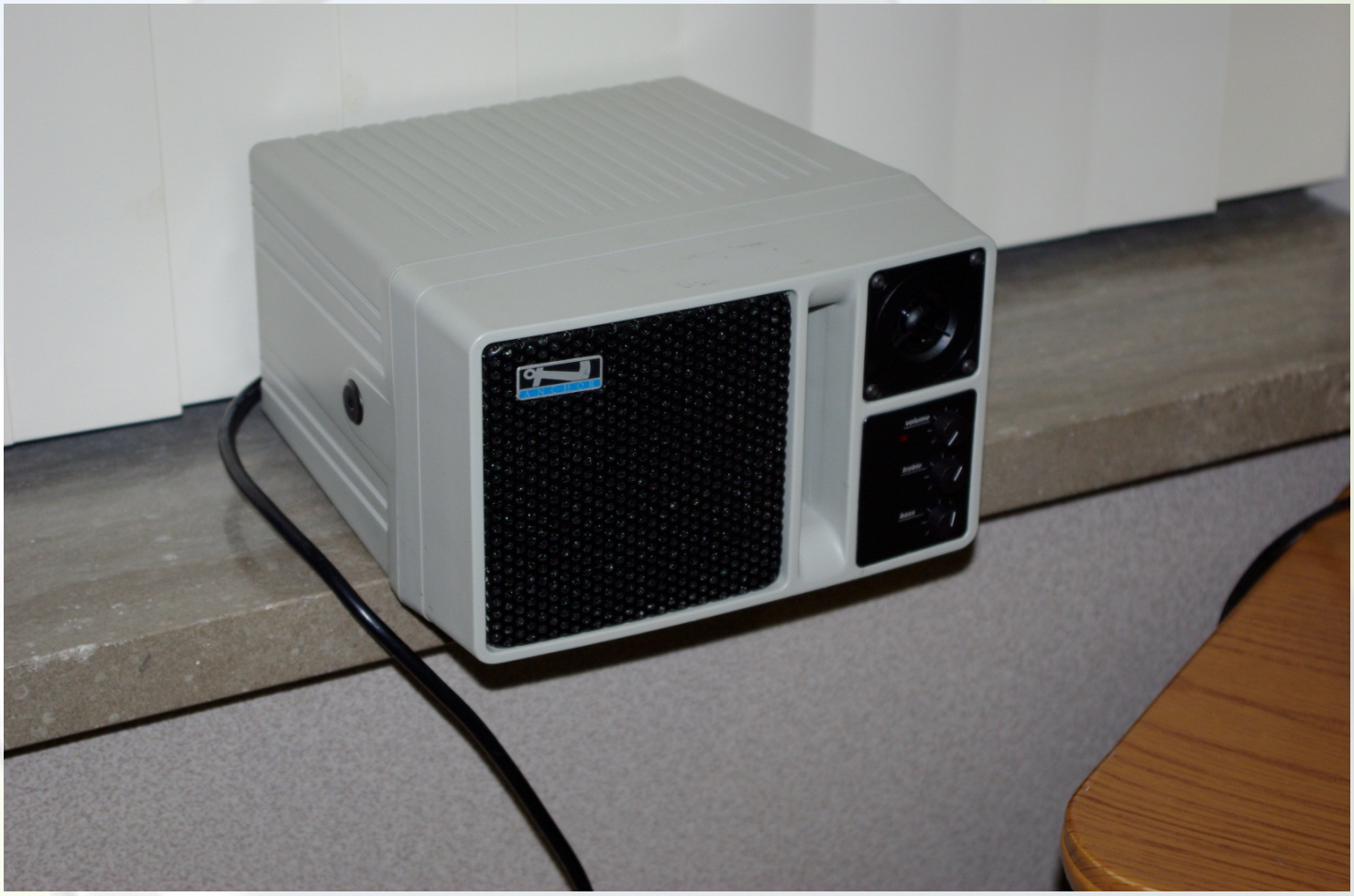
Basics

Merging Technology

It Works!


PC CONTROL
AUDIO OUT
AUDIO
L/MONO
R
VIDEO
S-VIDEO
COMPUTER 1
COMPUTER 2
ON/STAND BY
POWER
STATUS
LAMP
NEC

Tried & True





Questions?