A/V Debriefing Equipment for Simulation Labs and Skills Labs

A/V Observation Equipment Needs

Hardin-Simmons University is seeking advanced A/V Observation Equipment to enhance its simulation and nursing education capabilities. The desired equipment should provide comprehensive solutions for recording, monitoring, and reviewing simulated learning experiences. Below are the key requirements and features:

1. Integrated Video and Audio Recording System

- High-definition video recording capabilities with multiple-angle camera support.
- Clear, high-quality audio recording with noise cancellation to capture student and instructor interactions.

2. Real-Time Observation Tools

- Live-streaming capabilities for instructors to observe simulations remotely.
- User-friendly interface for controlling cameras, viewing feeds, and annotating observations.

3. Debriefing and Playback Features

- Easy-to-use playback tools with the ability to annotate, bookmark, and highlight critical moments during debriefings.
- Syncing of video, audio, and patient monitor data for a comprehensive review of simulations.

4. Compatibility with Existing Systems

- Seamless integration with existing simulation mannequins, patient simulators, and software used in the nursing program.
- Compatibility with standard file formats for exporting and sharing recordings.

5. Secure Data Management

- Encrypted data storage to ensure the confidentiality and integrity of recorded sessions.
- Role-based access control for managing user permissions.

6. Installation and Training Support

- Professional installation services to ensure optimal system performance.
- Comprehensive training for faculty and staff on equipment usage, troubleshooting, and maintenance.

7. Scalable Solutions

- Modular components that can be expanded as program needs grow.

- Options for portable or fixed installations to suit different simulation environments.

We require a full simulation observation suite for the six Simulation Laboratories and a more basic setup consisting of eight audio and video recording systems for the eight beds and simulation mannequins in the Skills Training Laboratory. A more detailed description of the A/V equipment can be found below.

Interested vendors are invited to submit proposals detailing how their equipment meets these requirements. For further information, please refer to the RFP document or contact Andrew Briscoe at andrew.briscoe@hsutx.edu.

Desired Functionality of Equipment

Video Recording Software and Asset Management Database

Software Observation Goals

• The software shall display interviews in an easy to find list and be labeled according to user preference. In the event that multiple cameras are located in a room the user will be able to launch all camera views by clicking on a single room ID.

• The software shall support all rooms being viewed simultaneously and up to 200 concurrent live video streams.

• The video live stream shall not have a latency greater than 1 second.

• The software shall include support for cameras up to 4K Resolution.

• The software shall have an optional IOS application which will allow an IPAD or to be used as a wireless camera on the campus network.

• The rooms displayed in the list shall be based upon user log in and which group the user belongs to.

• User rights shall prevent other users from logging into the system and viewing a session which they have not initiated or have rights to view.

• PTZ Control shall be performed via mouse or clicking in the video window.

• The software shall provide the ability to create presets to position PTZ cameras.

• The software shall allow observers to create markers during the observation process which index important video points. With each marker that is provided a notes field shall be provided to allow the user to type in additional notes regarding the marker.

• The software shall allow markers to be created by multiple users on different client machines observing the same event. All of the marker information must be cataloged and indexed into the same video file and stored within the video database.

• Observers, with appropriate rights, shall be able to talk to students via computer microphone or USB headset by simply clicking on an icon located within in the video window during observation when optional talkback hardware is present.

• The software shall allow the observer to view up to 9 simultaneous sessions on a single matrix display in order to view multiple live video sessions.

• The software shall support digital pan tilt zoom on all live view cameras.

• User rights shall allow/disallow observation privileges for which cameras are viewable, intercom access, ptz access, and marker capability based upon user and group access.

• The software shall provide a customizable “branding” home page for user login.

Software Recording Capabilities

• The software shall provide an unlimited number of unique data fields per camera which are customizable to the customer. The data fields capture specific interview information in order to catalog and index the video file. Example data fields include: officer name, badge number, interviewee type, case number etc.

• Each data field shall be customizable and provide for options of free form text, pre populated text or the ability to create customized drop down boxes.

• The software shall support all cameras to be recorded simultaneously along with all rooms be viewed simultaneously without loss of system performance.

• The software shall provide the ability to select preset positions for the PTZ camera that the camera automatically positions itself to upon recording.

• Each video shall be recorded in its entirety in a single file regardless of session length. There is no work required by the user to create or save the file. The file shall not be broken into individual segments based on time.

• The software shall support grouping of multiple cameras together. The software shall support synchronized start and stop recordings of grouped cameras and the population of all cameras that are grouped with the same meta data. In the event the cameras are grouped each camera may be played back or downloaded independently if required.

• The software shall allow recording to be initiated via the user interface. A one click record button in the user interface shall start and stop the recording.

• The software shall provide a schedule feature which allows the user to schedule recordings in advance and pre-populate the session data using the customized data fields. The scheduler shall allow for scheduling of “recurring” appointments based upon days of the week and month. The schedule shall allow for removing individual sessions in the event that a session is canceled without removing the remaining sessions. The software shall allow for exceptions to remove recordings and take into account holidays and “days off”. The schedule shall allow for granting viewing rights to users that typically do not have access to the recorded video.

• The software shall provide an access control option that will allow recordings to be started and stopped with a student ID badge and associate the recording with appropriate student.

• The software shall have the option of starting and stopping recording via a lighted button.

• A recording light indicator shall illuminate upon recording.

• The software shall provide for the ability for users to grant access to other users to view the content if the other users may not have the “appropriate rights” or security level normally to view the recording.

• The software shall have the ability to generate a unique recording URL which will allow 3rd parties to access video which they otherwise do not have access to.

• User rights shall allow/disallow recording privileges for: which rooms are available per user, scheduler recording access, editing of session data, and ability to stop other users’ sessions.

• Video recording shall be available immediately after recording. No rendering time shall be required in order to view a recording

Software Search and Playback Capabilities

• The software shall limit users to search for content using a single search box. The users may type in any information which has been entered into the session data fields in order to find desired content including marker information.

• The software shall allow users to search only their content or content that they have been given access to.

• The software shall allow/disallow the user to launch recordings and provide the ability to choose playback beginning at the start of the video or at a certain marker points within the video.

• The software shall allow the user to navigate through the playback video by clicking on a timeline or choosing any marker which may have been created during the observation mode. By selecting a marker that video shall automatically begin playing at that marker point. The software shall also include the standard play, fast forward, fast reverse, stop and pause features.

• In the event multiple cameras associated with a single room or joint rooms, video content plays back completely synchronized.

• The software shall allow markers to be created and inserted into recorded video during playback sessions in order to index key points and allow users to quickly find and identify content.

• The software shall provide, with appropriate rights, session data to be edited during the playback.

• The software shall include a built-in video editor that allows the user to create video clips and save them as independent files.

• The software shall support digital pan tilt zoom during playback.

• The software shall allow, with appropriate rights, users to download content to their own PC which may be played back in a standard media player.

• The software shall stream the video to appropriate users. No downloading of the video shall be required in order to playback video content.

• User rights shall allow/disallow playback privileges for: which content is searchable, the ability to edit session data, the ability to create markers, and the ability to download video.

Software Security Rights and Management Capabilities

• The software shall assign users rights based upon groups. The software will provide the ability to manually create users and groups within the software.

• The software shall provide an interface for LDAP integration in order to synchronize with university user ID's and passwords.

• The software shall support Single Sign On (SAML) if required and selected by the end user.

• The software shall provide full SSL encryption of all usernames and passwords and encrypt all video data while at rest.

• The software shall provide the ability to encrypt of the video streams.

• The software shall allow each group to be allocated its own set of cameras and to easily segment and departmentalize groups in order to isolate them from each other even though they share the same infrastructure.

• The software shall provide the ability to upload and manage MP4 video files created from other devices.

• The software shall provide the ability to create "templates" so that different data fields are presented to different groups of users upon log in.

• The software shall provide a video retention period that is set per group of users which will automatically delete after a certain period of time.

• The software shall allow video's to be removed from the auto delete function for long term storage.

• The software will maintain a detailed historical log of log in, recording, playback and administrative changes.

• The software shall have the ability to create custom reports based on usage, asset information and marker information.

• The software shall have the ability to create evaluation templates and forms which may be used to score and evaluate recordings. The software must be able to plot and graph scores in a generated report.

Cameras Capacities

• The cameras shall be IP fixed and PTZ wall mountable cameras providing h.264 compression and HDTV 1080P resolution. The camera shall have a line level audio input and a line level audio output.

• The video shall be encoded in an MP4 streaming format allowing video to be played back without the use of a proprietary player.

• HDMI encoders shall be supported which allow the ability to record power point presentations etc. along with the video recording.

Audio Interface and Microphone Equipment

• The audio interface shall utilize power over ethernet. It shall provide power to the microphone.

• The microphone is to be ceiling mounted and connected to the audio interface using shielded microphone cable.