

LEIGHTRONIX **NEWS**

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Holt, MI

Medical education opportunities advance with use of LEIGHTRONIX LABvault-SD for testing and review

LABvault-SD allows medical institutions to review and grade pre-recorded laboratory procedures remotely

As video technology has made advancements, so has its ability to adapt and create solutions for unique applications. Among those is a solution for monitoring instructed classroom procedures on-site and test procedures remotely, within the field of medical education.

At one medical university located on the western coast of the United States, student laboratory procedures that require monitoring and grading can now be viewed by professors using the LABvault-SD™. The digital recorder, player, and file transferring device, LABvault-SD, can also be thought of as a custom, professional DVR. The process allows students to gain experience with procedures in a laboratory setting and also receive feedback from on and off-site instructors, who can later review procedures through transferred digital media files. As a result, students acquire hands-on experience through a stimulated testing environment that allows an instructor to watch each student in action on a local monitor or review content later for testing purposes remotely.

The laboratory process

Medical students at the university needing to be monitored or reviewed by professors on any given procedure enter a laboratory equipped with a number of lab stations. In this case there are ten stations, each containing a bed of regulatory standards, a touch screen panel for remote control, a camera with an aerial view of the entire station, and monitor for immediate review of captured video.

The camera is positioned so that all motions made by a student within a station can be seen by the instructor at all angles.

Upon entering a station, students at the university first turn to the touch screen control panel to initiate a new recording at the station. On the touch panel display, the students first enter a filename for their procedure. This filename can be generated based on pre-established guidelines from the students' instructor. Filenames can



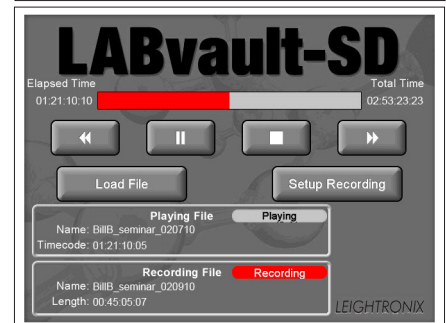
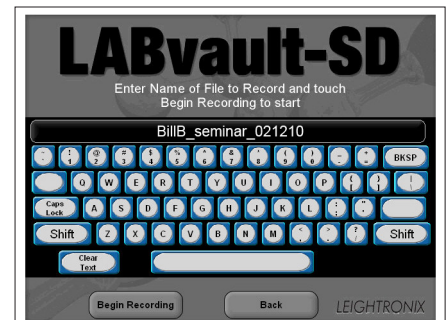
Students at a medical educational facility are able to use lab stations to record procedures for monitoring and review with digital media.

also be automatically generated by the LABvault-SD, containing pre-programmable elements, such as the laboratory bed number, followed by date and time.

After a filename has been chosen for the procedure, students are given the option to begin a recording on the touch screen display. This option triggers the aerial camera to begin sending the video to the LABvault-SD and start the recording for storage on its internal hard drive.

At this point, the LABvault-SD acts as a digital recorder.

It encodes and stores a copy of the live video feed to be archived for reviewing post procedure. Throughout the procedure, students can refer to the touch screen



controller for clear information on the duration and status of the recording. Display information includes the length of the procedure as it is taking place. When the procedure is completed, students use the touch screen interface to stop the recording.

With the recording completed, students have the opportunity to immediately review the new digital media file alone, or with an instructor on-site through the television monitor connected to the LABvault-SD. Options are displayed to play and stop the recording, and also fast forward or rewind the recording as needed.

After a final review, the recording can be deleted, giving the student the option to start a new recording of the same procedure. Or, with the final push of a button, the student can accept the video recording and initiate an immediate transfer of the digital media file to an archive server.

Reviewing of recorded media

Once a student approves a digital media file, it can be sent to a number of places to be accessed for review by instructors of the university.

The LABvault-SD is equipped with several file transfer options to provide easy access to media files. Files can be transferred onto a portable hard drive and then taken anywhere, or sent to a broadcast playback server, such as the UltraNEXUS™ digital media server, providing the option to broadcast the captured video over a cable channel or in-house cable system. Files could also be sent to a streaming video-on-demand Web site such as

LABvault.TV™, hosted by LEIGHTRONIX. This option offers the ability to watch digital media files at any time, from anywhere that instructors have access to an Internet connection.

Instructors also have the option of retrieving files from a intranet-based archive network server. The archive server can be used to simply store digital media files or an institution could also choose to use the server to host their LABvault-SD files for in-house display as video-on-demand. With a computer, end users are also able to log into a network archive server and download a file that can be burned onto a DVD. The LEIGHTRONIX LGX-SVOD server easily meets both of these needs, coming complete with a Web based display/control interface that is only available through the institution's internal network.

With the LABvault-SD, end users also have the option of choosing not to use a file transfer and instead watching each digital file on the monitor attached to the server inside the laboratory. An institution could also choose to hook their LABvault-SDs up to a routing switcher that would allow for the media files to be routed to many video locations, for scheduled or immediate playback.

Each option allows students to excel within the medical field gaining valuable hands-on experience and feedback from instructors, with the aid LABvault-SD digital media recorder and player.

For information on the LABvault-SD call (800) 243-5589.

LABvault-SD workflow:

