



## AV Takes to the Gridiron

### A FLEXIBLE VIDEO ARCHIVING AND CONTROL SYSTEM IS AT THE HEART OF MICHIGAN STATE FOOTBALL COACHING CENTER.

by Don Kreski

**T**he Michigan State Spartans aren't taking any prisoners in their drive to become, once again, the dominant team in the Big Ten. So it's no surprise that they pulled out all the stops at their new Skandalaris Football Center, a \$15 million, 25,000-square-foot addition to their Duffy Daugherty training building that was completed last year.

At the core of the Skandalaris Center is a digital video archiving system that is networked to a divisible team meeting room and nine other meeting rooms. The archive is used in conjunction with the on-screen annotation system built into Crestron's TPS-GA-TPI touchpanel interface, which also controls video, sound, and other systems in these rooms.

"What people don't understand with any sport, and in particular football, is that there's a lot of instruction involved," says Gregory Ianni, senior associate director of Athletics. "We wanted to set up stations where our assistant coaches could be most effective in teaching their student athletes the game of football."

Time, according to Ianni, is a crucial factor in any college football program. "We get just 20 hours a week with the players. If you figure

they're on the field roughly two and a half hours, they're probably in those rooms an hour to an hour and a half a day."

At Michigan State, coaches have long felt that reviewing plays is the most productive way they can spend that classroom time. "There's no question," Ianni explains. "We constantly look at techniques and situations in game video and practice video."

"Let's say we're running a certain play, and the offensive line has to block a certain way. We may have 20 plays from past games where we successfully used that blocking pattern, and the coaches will show selections of those plays. They also have the ability to stop the play, draw the play right on the same screen, and draw where they want people to block. The coach used to have to stop the video and walk up to the blackboard to script the play. But now he just does it on his desk, and it shows up on the room's big screen. It's as efficient and effective as you can get."

This type of visual learning is especially effective for young athletes, Ianni says. "You have to remember that this generation has this kind of technology as their expectation. This is how they learn, and this is how they communicate."

The video used in instruction comes from two sources. Media staff at MSU shoot footage at every game and every practice, and Big Ten members share video from every game in a digital format. Media staff take all that footage and break it up into clips, indexing it and archiving it on a computerized system from XOS Technologies.

#### BUILDING THE INSTRUCTIONAL SYSTEMS

Ianni says Michigan State has used the XOS archive system for about ten years. A major goal of this project was to fully integrate this system into the classroom display and sound systems, maximizing the effectiveness and efficiency of instruction.

Mike Sexton, technology designer at Troy, MI-based AV consultant Integrated Design Solutions (IDS), says Michigan State has built up about 20 terabytes of archived content, digitizing game film going back at least 20 years. Coaches access the system from networked PCs in each of the classrooms as well as their offices, and a detailed index makes it easy to find specific clips.

Because newer footage is high-definition and in a widescreen format, IDS specified use of a 19-inch CyberTouch O1900U touchpanel to be used with the Crestron touchpanel interface, plus high definition projectors and flat panel displays. A coach can bring up a video clip on the touchpanel and the room's large screen display, start it, pause it, and draw on it using the Crestron annotation software, and once he's sure his players understand the point he is trying to make, move quickly on to the next clip. He can also annotate over handwritten plays from a document camera or media from DVD, videotape, or live video coming from an RF head end in the building.

Sexton says IDS used a Crestron MPS-100 for audio and video switching and control in each of the classrooms and offices, and they route all local video and audio signals in these rooms over Crestron QuickMedia cable. "We like the MPS-100 because it conserves rack space and minimizes interconnects, yet does everything MSU needs," he explains.

A Crestron PRO2 processor located in the head end networks all the control processors together for RoomView centralized management. The integrator can also access the Skandalaris Center network from their service department should they need to step in with support or troubleshooting help.

In the Team Room, IDS specified the use of two 6,000-lumen Sanyo PLV-WF20 projectors; in the smaller squad rooms and coaches' offices, they used Sharp 32- to 65-inch LCD displays.

"Michigan State asked us to make the Team Room divisible so they could very easily break out the offense and the defense," Sexton explains. "We looked at traditional manual air walls and motorized walls, but these took at least five minutes to open or close, which was just too long, given their limited time with the players." Instead, MSU opted for a Skyfold motorized wall that drops from the ceiling and is in place in about one minute. Control of the wall and all audio and video switching is accomplished with one touch of a button on the Crestron-controlled CyberTouch touchpanel.

The AV integrator wired all the sources back to a BSS SoundWeb London digital signal processor, which can detect the position of the wall and switch to its one-room or two-room settings. If the coaches show a multichannel signal, it will detect that too and distribute the audio in a 6-channel surround mode. IDS had

loudspeaker manufacturer JBL Professional design the speaker layout in those rooms, and they can pump about 6,000 watts of sound into each side, which makes quite an impression during a motivational video.

#### A RECRUITING AID

A major goal for the Skandalaris Center was to support Coach Dantonio's stepped-up recruiting program. "The young men who are considering playing for the Spartans are very aware of the technology here," Ianni explains.

A team history museum is a prominent part of the facility, illustrating the Spartans' storied past and the success graduates have had moving into the pros. The museum includes a 2x2 video wall using four Synergy TB-1LD40 40-inch displays, each of which has its own built-in processor. The same RF video and audio distribution system that sends live video into the classrooms and offices feeds this wall and several 42-inch Sharp displays also installed in the museum. "We'll show live games, taped highlights, recruiting presentations, and NFL high-

lights featuring former Spartan players," Ianni says. Staff choose sources using a Crestron TPS 15L touchpanel and a Crestron CEN-RGBHV16x16 wideband RGB matrix switcher routes the signals.

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