

The background image shows a modern broadcast studio. In the center, a large curved desk is illuminated from below. Behind the desk, a large video wall displays a glowing green globe with fiber-optic-like lines extending from it. To the left and right of the desk are smaller video walls showing underwater scenes with fish. A black leather sofa is visible on the right side of the frame. The studio is lit with professional lights, some of which are visible in the upper left corner.

CASE STUDY: UNIVERSITY OF CENTRAL FLORIDA

UCF Prepares Students with Technology-Rich Broadcast Labs

Challenge

Upgrade the live TV video production studio in UCF's Nicholson School of Broadcasting by adding video walls enabling student producers, directors and technicians to call up virtually any combination of individual or multiple screen views, all fed by state-of-the-art broadcast cameras.

Solution

Installation of three video walls comprised of 14 Panasonic TH-55LFV6U 55-inch professional displays, along with a diverse fleet of HD cameras, including the Panasonic AK-HC3800 studio, AG-DVX-200 handheld, and AJ-HPX-610 shoulder mounts.

Result

Fulfilling the School of Broadcasting's goal of providing students with experience and training on the state-of-the-art systems they will encounter in post-graduation employment.

Founded in 1963, the University of Central Florida (UCF) in Orlando, FL now leads the U.S. in undergraduate enrollment, including the largest enrollment in a single campus, with a population of nearly 65,000 students from more than 150 countries and all 50 states.

Among the 210 degree-granting programs serving the bustling campus' diverse student body is the Nicholson School of Communications (NSC), which houses UCF's radio/television studio and production facilities. When it opened in 1999, NSC was equipped with the turn-of-the-century's latest, greatest analog and digital technology, the majority of which was provided by Panasonic.

The primary mission of the studio was to teach "real-world broadcasting skills in a real-world environment," to serve as a hands-on learning laboratory covering all facets of broadcast and, to a lesser extent, print production. Then, as now, access to the studio facilities was limited to junior and senior broadcast majors who use them to learn and hone production, direction, camerawork, editing, interviewing and similar skills.

NSC's goal has not changed: "Our goal is to prepare our broadcasting graduates to confidently move right into careers in videography, producing, directing and managing broadcast and electronic media properties," Jim McCully, NSC's Senior Broadcast Technologist and Studio Manager said. "There is no question that video walls have become industry darlings over the past several years. Audiences love them, producers love them, graphic designers love them.

"The new Panasonic video wall gives our students an outstanding opportunity to learn enough to be able to step into a production or editing job requiring manipulating images between multiple panels and hold their own."

The 2x3 video wall, comprised of 16 6 Panasonic TH-55LFV6U displays, is centered at the front of the 80x60-foot studio and is flanked by two smaller 2x2 panel mini-walls.

A Corio TVOne Videowall Processor handles all the switching chores "working very well and hand in hand with the monitors," McCully said.

"The TVOne system is very specialized for this kind of environment," he added. "You can use all 14 monitors as a palette of different images, you can have one image spread across all the monitors, or one image across the top three monitors, a different image beneath that and still different images on the smaller walls. It's totally flexible and the amount of creativity that can be used to populate it and the speed at which images can come and go and shift and change is limited only by the imagination and skill of the directors and operators controlling it."

Needless to say, the equipment surrounding, flanking and interacting with the video wall has little in common with the late-'90s "state-of-the-art" studio setup that greeted the first group of students to enter the new facility.

Constant refurbishments, retirements, and replacements of outdated equipment and techniques have resulted in a 100-percent HD facility in which the latest designs in cool-burning LED cluster lighting have supplanted the fiery Klieg lights of old, solid state storage media has replaced analog tape and each of the four regularly scheduled programs produced in the studio are taped by a quartet of Panasonic HD studio cameras.

According to McCully, the basic studio setup uses three AK-HC3800s, triple-sensor CCD studio cameras with high-precision 16 bit A/D image processing circuit and



38-bit Digital Signal Processors (DSP) and a sophisticated implementation of Panasonic's exclusive dynamic range stretch circuitry.

These are generally augmented by a fourth, lighter, Panasonic HD camera – typically a 4K resolution DVX-200 weighing in at just 6 lbs. complete with integrated 13X optical zoom lens – mounted overhead on a jib.

McCully eschews motorized dollies for any of the cameras "We just push them around," he says. "The students don't mind we're deliberately trying not to automate too much because we're trying to teach every position."

A few of the other Panasonic HD Pro Camcorders used to cover out-of-studio, new media, or interview opportunities include the 1080p HPX-610, the AG-UX90 handheld camera and a backup fleet of 15 older Panasonic HD shoulder-mount camcorders.

All those Panasonic cameras get passed around quite a bit because, McCully says, even introductory classes for the 500 School of Communications students are taught with cameras.

"The students quickly get indoctrinated with classes requiring equipment," he says. "Then they start to volunteer for as many shows as they can to try and get some exposure and experience there so we get equipment into their hands fairly quickly."

Of the four currently in-production programs, all juniors and seniors are able to work on three, which are all disseminated online via social media platforms: "ToKnight's The Night," "Beyond the Credits," and "Hitting the Field."

And then there's the "Knightly News", which is broadcast on Orlando's Brighthouse Cable System as well as the usual online networks. Only a short list of 16 seniors per semester are selected to work on the "Knightly News." Working in smaller units or even by themselves ("flying solo," in Jim McCully's words), they are responsible for unearthing, scripting and shooting their own news stories (including interviewing relevant participants such as university or city officials, police spokespersons, visiting dignitaries, etc.)

They then have to edit their raw footage, (and usually) cut it to fit a predetermined time slot and prepare it to be critiqued by their peers and professors. If a completed story doesn't make it through the critique process, parts of it may need to be reshot or additional supporting material or interviews added. Worst case scenario, the entire story will have to be rewritten and reshot.

"We always keep timeslots open for changes like that," McCully said. "We don't rush everything to the air every day like some schools trying to get bragging rights by touting a daily newscast. We have a once a week newscast which, thanks to the time we take for critiquing and correcting, results in the kind of quality reports you as an educator or just a casual viewer, really desire. Our process is ultimately based on teaching quality.

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Nicholson School of Communications

"These kids today are flying solo a lot and that's really matching a lot of what's going on in the actual broadcasting world today. They work on trying to generate stories all over the place. It's true that there are only 16 students in the production room, but they are each trying to get in two or three packages a week," McCully notes.

"They're making the interview appointments, setting up the camera, using themselves as the talent asking the questions of the interviewee and shooting their own standup in front of the news scene. They rush back here with their B roll, put together their package and get it in the queue to be reviewed. So it is, in one way, a pretty accurate example of a lot of the standard operating conditions in today's atmosphere of cut-throat, cut budget news gathering, "But as heady as the adrenaline rush may get, flying solo is frequently not as comfortable as being part of a team or as effective in getting a complete, fully-formed package.

Closing in on his 30th year at the Nicholson School of Communications, Jim McCully, says his greatest job satisfaction comes from "working with technology in a learning environment" and watching the students grow in confidence and suddenly begin to light up when they come to realize what they can accomplish."

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