



WFUM-TV builds new broadcast operations center at the University of Michigan

Category

Station automation

Submitted by

Sundance Digital

Design team

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Roscor Corp.

Engineering Group

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Technology at work

Active Power 65 kVA flywheel-based uninterruptible power supply

Evertz AC3 processors
Harris Leitch

IconMaster switcher
Integrator Gold router
Panacea A/V routing

Omneon

Spectrum server
MediaGrid storage

Sundance Digital

Titan automation
Intelli-Sat automated satellite ingest
TitanSync/SQL server system redundancy
Archive Manager
Launch Box control panel

Utah Scientific AVS1B router



To get from a tape-lugging analog facility to fully digital, automated, tapeless multichannel HD at WFUM-TV called for good planning, patience, ingenuity and some unique, cost-saving engineering solutions. As the PBS member station licensed to the Regents of the University of Michigan in Flint, MI, funding arrives intermittently and is never enough to do major projects all at once. Fortunately, the station made the transition in smart phases.

When announced that the station would move into the new William S. White Building on the university's campus, WFUM began working with architects. This project came on the heels of a new transmission facility build-out that included a new antenna, analog and digital transmitters, and new studio to transmitter link equipment.

The 8000sq-ft facility could only be located on the fourth floor and have 30ft ceilings and support studios. As a top floor, the station was subject to HVAC rooftop noise and vibration. The solution: build-in a vibration joint running from ground to roof through the entire building to isolate the studios.

In 2003, with a grant from the C.S. Mott Foundation, WFUM constructed the control room and outfitted two studios, but had insufficient funds for new equipment. Then the station had a great idea. An unused single-mode fiber trunk ran from the old facility to the university's campus. After getting permis-

ion to use it, the station linked the on-air control center at the old facility to the new studios, and began using them for production and live broadcasts.

In late 2005, grants from the C.S. Foundation and the Department of Commerce PTFP for new equipment were awarded. At the core, Sundance Digital Titan automation handled playlists for analog, SD and HD channels as well as routing for an educational network. Unexpected savings happened by cleverly interfacing Titan with an old Utah Scientific AVS1B router to distribute and route video over the fiber-optic education network. Another money-saving idea was to install new Evertz AC3 processors and upconverters in the main busses between the Harris HD IconMaster switcher and the Integrator Gold router. The processors automatically sense SD and upconvert to HD. WFUM also bought an Omneon MediaGrid archive storage system and integrated it with Titan.

The station wanted to enable unattended operation with close monitoring, allowing staffers to remotely monitor from laptops with the ability to access systems. Now, staffers are freed from on-air operations and have shifted to local production.

On Oct. 29, the station cut to its new HD broadcast operations center successfully, just in time to handle the live Flint mayoral debate that night. ■