



Amherst Middle School Uses Wirecast to Produce Live Morning TV Newscasts



"We needed an affordable system for live production and media streaming that would let us do sophisticated real-time video effects, like greenscreen keying, yet still be user-friendly and intuitive for students of every skill level. From the moment we demoed Wirecast, we were instantly impressed with its screen layout, features, workflow and capabilities. The set-up was so easy, it wasn't long before we went live with Wirecast."

– Rob Zdrojewski ("Mr. Z"),
Technology Education for Amherst
Middle School, in Amherst, NY
@MrZtechTV
@AmherstTechTV

At Amherst Middle School—a public school serving 700 students grades 6 through 8 in the Buffalo, NY suburbs—every student gets the chance to experience the excitement of producing "Live at 9:05," their live, daily morning TV newscast. A welcome alternative to PA announcements, each 5-minute program reports on school news, events, student achievements and birthdays, weather and a life-coaching tip called "Today's Caring Message."

The Initiative

As part of the Amherst Tech TV program developed by Technology Education teacher Rob Zdrojewski ("Mr. Z"), the students take turns working in every news production position, from on-camera reporting to behind-the-scenes producing, directing, graphics creation, editing prerecorded video segments and more.

The centerpiece of the school's greenscreen TV studio is Telestream Wirecast live production and streaming software. It enables Amherst Middle School to cost-effectively:

- ✓ Produce a high-quality live newscast broadcast every weekday over the school's closed circuit TV system
- ✓ Enhance the show with graphics keyed live into a greenscreen background, high-quality audio, CG text and other professional touches
- ✓ Organize and manage news rundowns, including prerecorded video segments, graphics, program opens and closes and other show elements
- ✓ Provide a user-friendly learning environment for students of every skill level
- ✓ Upload shows to the school's YouTube channel
- ✓ Live stream to YouTube and save recorded copy for upload later

The Background

Seeking a way to give students hands-on experience running their own TV studio, Mr. Z spearheaded the Amherst Tech TV program in 2006. He devoted his free time to renovating a school storage room, and personally built a custom two-room TV studio in that space.

The on-set greenscreen allows Wirecast to key video, graphics and other imagery behind the talent during live camera shots. This capability benefits the production by:

- Giving the appearance of a bigger, multi-camera news studio without set design costs
- Enabling weather graphics, such as 5-day forecasts, to display behind the reporter
- Keying location footage to give the illusion that the reporter is doing a live stand-up field report
- Adding value to the content

Today, the live daily TV newscasts serve as an effective way to keep students, staff and the public informed about school activities and achievements. It also gives parents and grandparents the opportunity to view the shows—whenever they wish—to see their children performing as TV newscasters and reporters.

The Challenge

While the live newscasts have become a staple of school life, there were some financial and technical hurdles along the way. Getting started, Mr. Z needed to look for outside funding, and received a grant from Best Buy that helped underwrite the costs.

He also encountered technical difficulties working with the school's IT infrastructure, due to the restrictions the district places on in-school computer use. In his own words, "Working in the K-12 school system can be tricky since IT departments have a tendency to 'lock-down' district computers, making it difficult to troubleshoot issues on the spot as they happen."

He suggests that teachers work with their IT departments to arrange for a stand-alone computer set-up that meets the unique needs for live video production. He recommends seeking grant funding—from groups like the PTA or Alumni Association—if necessary to cover the costs. For expediency, Mr. Z decided to lend the studio his own personal MacBook Pro laptop and it's been running Wirecast ever since.

The Solution

To manage all aspects of the live news programs, students are divided into five groups, each responsible for a different day of the week. Even though they arrive earlier on those days, there isn't much time for preproduction of that day's newscast.

That's why they must rely on production templates that provide a framework for the newscasts, where all they have to do is make a few minor modifications before going live. The equipment set-up also had to have "set it and forget it" simplicity.

After extensive research, Mr. Z discovered Wirecast software, downloaded the demo version, tested it and determined that it had the feature-set they were looking for—including ease of set-up, real-time greenscreen keying and graphics, timesaving templates, and an integrated toolset.

It also offered the real-time performance and reliability that are crucial to live production. And more importantly, it's fun and easy to use so students are not intimidated by complex technology or bored by a slow learning curve.

The Set-up



The greenscreen TV studio at Amherst Middle School relies on the following gear:

- Wirecast live video production and streaming software from Telestream
- Apple MacBook Pro laptop
- One Panasonic mini-DV consumer-grade camcorder
- One Blackmagic Design Intensity Extreme converter box that feeds the camera's analog composite output into the computer
- Two Shure SM-58 XLR microphones designed for high quality sound and durability
- Two high quality wireless Sennheiser XLR handheld transmitters and rack-mount receivers.
- One Yamaha 8 channel analog mixer, with two XLR connections for the mics
- One VGA-to-composite converter box
- Reference monitors, headphones, a tripod, cabling, lighting and other accessories



The Signal Flow

The two microphones feed the audio mixer so that individual audio levels can be better controlled. The outputs of the audio mixer, plus the composite output of the camcorder, are input to the Intensity Extreme Box, which feeds a converted signal to the MacBook Pro running Wirecast.

The laptop simultaneously outputs the newscasts three different ways: to YouTube for streaming, as MP4 video files that save on a local hard drive, and to a VGA-to-composite converter box that converts the live signal so it can display on TV monitors in the classrooms and other on-site locations.

The Results

“Wirecast makes it possible for our students to produce their own live TV newscasts complete with greenscreen keys, digital video effects, lower third supers and other production tools that are the hallmark of today’s TV news business. When the students watch the newscast

in homeroom, it starts the day off with a moment of shared focus and community. We’re very proud of the national attention and acclaim our newscasts have received for excellence and innovation.”
– Rob Zdrojewski (“Mr. Z”), Technology Education for Amherst Middle School, in Amherst, NY.

For more information

Watch Amherst Middle School’s live TV newscasts on their YouTube channel: www.AmherstTechTV.org or on Twitter [@AmherstTechTV](https://twitter.com/AmherstTechTV)

Mr. Z produces a Video Training Series to teach educators and administrators how to use Wirecast in schools to produce greenscreen TV news of their own at www.RobZtraining.com

Learn more about Wirecast 6 live production and streaming software at: <http://www.telestream.net/wirecast/overview.htm>