

Wylie Independent School District

Educators Provide Innovative Instruction Using Windows Media

The Wylie Independent School District in northeastern Texas has improved education and saved both time and money through projects that take advantage of Microsoft® Windows Media™ Technologies. Using Microsoft Producer for PowerPoint® 2002, the district's staff and students quickly and easily create training seminars, class projects, and other rich-media presentations that synchronize streaming audio and video with PowerPoint slides. The district also uses Windows Media to stream cable television stations to classrooms, an alternative to broadband cable that saved the district \$280,000.

The challenge: integrating education and cutting-edge technology

The Wylie Independent School District (Wylie ISD) serves more than 5,000 students in five elementary schools, one intermediate school, one junior high, and one high school in Wylie, Texas, 23 miles northeast of Dallas. Technology is integral to education at Wylie ISD. Every classroom has multiple computers, and students use many innovative technologies: large-screen data projectors are connected to classroom PCs, and students hold videoconferences with their peers in other countries. Wylie ISD Superintendent Dr. John Fuller says technology is as valuable to schools today as the pencil was a century ago. The district's technology programs enable teachers to provide a world-class education and teach students the skills they'll need in the future. "We believe it's very important that our students from pre-kindergarten all the way through high school have as many opportunities as we can provide for experiences with not just technology, but cutting-edge technology," Fuller said. This technology includes Microsoft Windows Media Technologies running on Windows 2000 servers and desktops, and Microsoft Producer running on [Office XP](#) desktops.

Solution Overview

Industry

Education

Scenario

Knowledge Management

Business Situation

The Wylie Independent School District, which serves more than 5,000 students northeast of Dallas, Texas, wanted to enhance education and save time by delivering content on demand and distributing broadcast media from a central data center.

Solution

The school district deployed Windows Media Technologies as an educational tool with a variety of uses. The district's staff and students create training seminars, class projects, and other rich-media presentations using Microsoft Producer for PowerPoint 2002. The district also streams cable television stations to classrooms with Windows Media server, an alternative to broadband cable that saved the district \$280,000.

Benefits

The district has improved staff training and student education and saved both time and money.

Microsoft Software and Services

- Windows 2000
- Office XP
- Windows Media Technologies



Wylie ISD deployed Windows Media as an educational tool. The district wanted to enhance education and save time by delivering content on demand and distributing broadcast media from a central data center.

Solution: creating rich-media presentations and streaming cable stations

Wylie ISD technology officials use Microsoft Producer, an add-on tool for Microsoft PowerPoint 2002, to create online tutorials for staff. Producer makes it easy to capture, synchronize, and publish audio, video, slides, and images for rich-media presentations. These presentations can be viewed on demand in the Internet Explorer Web browser. The Wylie ISD tutorials, which combine PowerPoint visuals with Windows Media streaming audio and video, answer commonly asked technology questions such as how to use videoconferences in the classroom. Wylie teachers and a Wylie principal have also used Producer to create motivational presentations for students.

Students ranging from fourth grade to high school are using Producer for class projects. When Wylie ISD began using Producer following its release in the fall of 2001, excitement quickly spread throughout the district. "You go into the classrooms that are using it, and they're alive," said Lance Rizzo, the district's network manager. "Those kids are pumped. They're excited to be there. A lot of energy is in the air."

Producer eases rich-media presentation production

Before Producer was released, two of the district's technology officials tried to pair digital video and slides for teacher training presentations. It took them days to put together one presentation, and efforts to create a second presentation failed. A few weeks later, they received a beta copy of Producer. "When Producer came on board, we just kind of threw our hands up and jumped up and down," Rizzo said. "It was exactly the tool that we needed."

The incredible ease of use of Producer made it a good product for both staff and students. The New Presentation Wizard in Producer, designed for the novice user, walks users through steps such as choosing a presentation template, importing slides and video, and synchronizing the elements. Joel Partin, coordinator of the Department of Instructional Technology, said the wizard simplifies the process so much that users need only a basic knowledge of file management and PowerPoint.

It's also easy to capture audio and video. Producer users can capture audio or video with any connected DirectShow®-supported capture device. Wylie fourth-graders filmed each other giving their presentations with a Polycom ViaVideo camera that the district uses for videoconferencing, but Partin has also created presentation video with a simple Logitech QuickCam. Producer also makes it easy to publish presentations to a Web server, media server, file server, or a CD. Wylie ISD publishes Producer

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Lance Rizzo
Network Manager
Wylie Independent School
District

For More Information

About the Wylie Independent School District

Wylie, Texas

Web site: <http://www.wylieisd.net>

About Windows Media

Windows Media is the leading digital media platform, providing consumers, content providers, solution providers, software developers, and corporations with unmatched audio and video quality. Windows Media Technologies, which includes Windows Media Player, Windows Media Services and Windows Media Tools, is available for free* download at the [Download Center](#).

About Microsoft

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To access information via the World Wide Web, go to: <http://www.microsoft.com/>

For more information about Windows Media, visit the [Windows Media Technologies](#) page on the World Wide Web.

presentations on its public Web site. Staff, students, and parents can view the presentations using Internet Explorer and Windows Media Player.

Windows Media delivers cable television

Wylie ISD also uses Windows Media Technologies to multicast cable television stations such as CNN and the Discovery Channel from a central location to every one of its 2,300 desktop computers. This approach was much less expensive than running broadband cable to every classroom, which would have cost \$300,000 for the district's five elementary schools. The district instead spent less than \$20,000.

The district looked into streaming media for two years and considered several solutions. "Windows Media had the best picture and the best sound quality at the most reasonable implementation cost," Rizzo said. In addition, Windows Media consumed less bandwidth for comparable quality – one megabyte per stream compared to three megabytes per stream for competing products.

The Windows Media solution uses Windows Media Services (included in Windows 2000 Server), the Windows Media 8 Encoding Utility, Osprey-500 encoder cards, Premio Pentium 4-based workstations, and VCRs. To encode television signals for Windows Media, the cable feed is first routed to the VCRs, which send the signal to the Osprey encoder cards installed in PCs. For the user interface, a member of the district's technology staff developed a Microsoft Windows Media Player ActiveX® client in Internet Explorer. To show a cable station to a class, a teacher simply opens Internet Explorer, clicks on a station link, and the video appears in the browser. "Using the Windows Media ActiveX control was simple, there was nothing challenging on that end," Rizzo said. The technology staff also eased deployment by taking advantage of resources such as white papers on the Microsoft Windows Media Web site. "That's our number one resource to support the streaming initiatives that we're doing," Rizzo said.

The district deployed the cable television delivery solution in just three days. The major issue centered on the video frame speed. "We wanted to get the right balance of bandwidth and quality and picture size," Rizzo said. "We spent about three days looking at different scenarios, tweaking different resolutions and different bandwidth throttles."

Benefits: improving education and saving time

Microsoft Producer has sparked enthusiasm among both teachers and students. "It's an exciting, different way to teach that the kids aren't used to," Partin said. "Kids demand that. It's got to be something different to really get their attention." Debbie Gove, a Wylie elementary school teacher who has taught for 29 years, said technology like Producer makes teaching more enjoyable and interactive, and it gets her students excited about learning. Gove's fourth-graders at Akin Elementary created Producer presentations for a class project on Texas heroes. Instead of writing a traditional research paper and giving a presentation before the class, the students created PowerPoint slides and

videos of themselves presenting the information. Then they synchronized the elements with Producer. When Partin demonstrated Producer to the students, they were captivated. "They couldn't get me off the computer fast enough so they could start playing with it," he said. Gove said the students worked harder than usual on the project. "They had to learn a lot because they wanted to look good on that video," she said. The students learned not only about the Texas hero they chose to research, they also gained presentation skills such as eye contact. Student Tobie, age 10, said Producer presentations are more fun and interesting than regular presentations in front of a class. "It's a lot more exciting when it's up on the screen and you're seeing yourself," she said. Her presentation has even been published to the Wylie ISD Web site and can be viewed at <http://www.wylieisd.net/tech/train/simma-nars.htm>.

Producer has also improved Wylie ISD's ability to train staff. Tutorials posted on the district's Web site help teachers and other staff members with technology questions such as creating e-mail distribution lists. Partin, who created the tutorials, said the presentations provide convenient training at any time. Instead of contacting Partin or another staff member for help, users simply access the presentation on the Internet. "It's a time saver, and it's convenient for them," Partin said. "They don't have to wait for me to answer. They don't have to have their notes if they came to training. They can just pull up this rich-media presentation and get a comprehensive explanation."

The future: more rich-media presentations, new library of on-demand content, streaming of educational satellite feed

Windows Media has been so successful in the district that officials plan to expand its use. Administrators want to create Producer presentations explaining school policies, primarily for orienting new staff. Teachers are interested in using Producer to create lesson plans for use by substitute teachers. A speech pathology teacher plans to have students create Producer presentations of themselves saying words to help them learn correct pronunciation. "The possibilities are endless," Partin said.

The district also has other plans for providing educational content through Windows Media. The district is preparing to build a large on-demand library of educational videos for staff and students. Technology officials expect to use the Windows .NET Server as the platform when it is released. The district will also use Windows Media to stream teacher-targeted educational broadcasts from a Texas satellite system. Teachers will be able to watch the programming on their desktop PCs.

"Windows Media offers us a tremendous amount of flexibility," Rizzo said. "As new initiatives come up, we can pop things into this infrastructure at very little cost and then distribute many types of media directly out to every desktop in the district. We've tested it in terms of scalability. We have never hit a bottleneck. So we're very, very pleased with our decision to go with this."

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