ST. OLAF COLLEGE THEATER DEPARTMENT

The Kramer KW–11 transmitter/receiver is literally setting the stage for musical theater productions at St. Olaf College in Minnesota. It is supplying technology that brings still images and videos to the audience through projection surfaces integrated into scenic pieces.

According to Todd Edwards, designer for the St. Olaf College theater department, the use of video in theater productions is becoming more prevalent. "By using a recorded video loop, you lose the magic of live theater," he says. "We are trying to put together a system that can do it in realtime with the actors and instantly get it to hard-to-reach places on stage or to screens mounted inside scenic units."

The KW–11 unit was used in a recent production of Big Fish at the college theater. It fed a computer and projector in the front of the theater for a scene that depicted a digital daffodil growing all over the stage, Edwards explained. "It looked like it would fill the front of the stage. The KW–11 saved us from having to spend hours running cabling. … It has really proven itself with different uses," he says.

Edwards is also using the KW–11 units to set up "virtual" acting on stage. He has used the KW–11 transmitter/receiver to stream live video of an actor who was being animated to look like a giant. The animation was projected onto numerous projection surfaces, and the actor's facial expressions simultaneously streamed live over the animation. "It is very important that there be no latency in the video transmission," Edwards says.

In addition, the video feeds can add effects, including realtime compositing of actors and scenery. According to Edwards, this type of signal manipulation requires multiple bandwidth from a strong processor that will not degrade the video quality. The KW–11 transmitter/receiver combination is designed for HDMI transmission over short range distances. It provides video resolution up to 1080p @60Hz and has zero latency.

Edwards will use the KW–11 units to teach a summer Collaborative Undergraduate Research and Inquiry (CURI) workshop. Actors will get experience in front of a greenscreen, and the on-stage actors will learn to interface with the projected images. The KW–11 transmitter/receiver will be preset to create a virtual scanning computer with the actor in front of the greenscreen. Because these units are wireless, they are easily accommodated throughout the stage. Edwards has worked with the Kramer support team to select the right transmitters/receivers for his unique uses.