

Osprey Video's USB 3.0 Video Bridge Helps Take California's Parks to School

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The Project

California State Parks has a project for schools called PORTS — Parks Online Resources for Teachers and Students — a free distance-learning program that uses the power of interactive video conferencing to help K-12 educators teach common core state standards in the context of California State Parks. One of the many components of the PORTS program is electronic field trips, which provide guided virtual tours of some aspect of the parks in relation to a classroom curriculum. Once teachers request an electronic field trip, a California State Parks interpreter (ranger) works with the teacher on educational goals and then conducts the field trip by video conference.

PORTS relies on a green-screen studio to create the electronic field trips. The original studio was completed as part of a collaboration between the California State Parks, California State University, Monterey Bay, and faculty and students. As a professor who specializes in distance learning and video conferencing, I consulted on the original studio design. Now, as a CSU Professor Emeritus who continues to be involved with teaching programs and California State Parks, I am, once again, consulting, this time on a complete studio upgrade.



Osprey Video USB Video Bridge, simple component to a complex workflow that creates electronic field trips

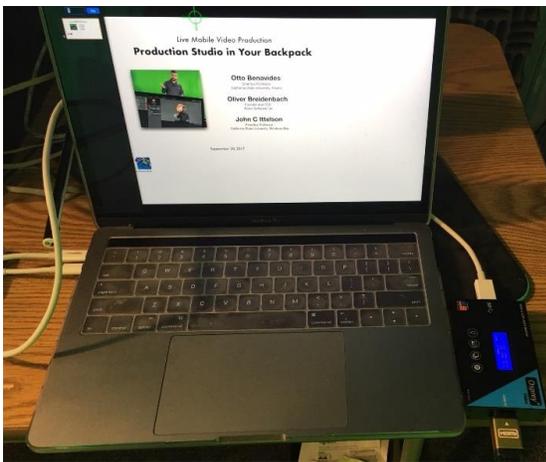
Technology Continues to Advance

In the more than 15 years since the original studio was built, technology has advanced greatly, and so have students' and educators' expectations. They want the quality of the electronic field trips to match what they see on TV — quality the original studio just couldn't provide. A refresh was in order to bring the studio up to current technological standards so park rangers can put their best face forward when working with schools across the state, the country, and the world.

Besides enhancing the green screen from a simple wall to a full-cyclorama green screen, the cameras, computers, video production switcher, software, and workflow are all being upgraded to make the studio easier to operate, but still perform at the highest professional level. In other words, a park ranger who is not technically sophisticated will be able to come into the facility, turn it on, and conduct an electronic field trip with broadcast-quality results and little to no technical assistance.

Reliability Matters

Multiple video sources must be able to connect to the switchers and computers in the studio. With the advent of high-definition resolutions, the studio is now dealing with resolutions that typical USB 2.0 can't handle, especially when multiple cameras are involved, so being able to reliably ingest video from both HDMI and SDI video sources into the video-conferencing computers via USB 3.0 is key to the new studio's success.



Easy Set up with unmatched reliability

The Solution:

PORTS Relies on the Osprey Video USB 3.0 Video Bridge

To meet that requirement, the studio-design team chose Osprey Video's USB 3.0 Video Bridge, a plug-and-play capture device that connects directly to the USB 3.0 port in the studio's video-conferencing computers. Video Bridge devices — one for HDMI and another for SDI — sit between the camera or the video switcher and the computers, accepting uncompressed video and embedded audio via either HDMI or SDI on one end and feeding them to a computer via USB 3.0 on the other. Video Bridge handles scaling, frame-rate conversion, and deinterlacing automatically, which makes it possible just to plug it in and let it run.

Simple Reliable Technology

Typically, technicians set up the studio, establish the cameras and connections, and get all the technology working so that it's ready for park rangers. But occasionally technicians must reconfigure the device to accommodate different equipment or restricted bandwidth, something that is easily done through a simple user interface on the LCD screen. No more swapping out gear! That simplicity eases the engineering workflow and makes the Osprey USB 3.0 Video Bridge a universal piece of capture hardware that matches whatever video conferencing or bandwidth constraints might be encountered.

Osprey Video has built an impressive system. Features such as the ease of configuration and the multiple resolutions that can be selected make this American-made product a very good buy. Those qualities, coupled with Osprey Video's great reputation in the television-production field, made the USB 3.0 Video Bridge an obvious choice. With that quality and reliability in place, the Osprey Video Bridge will serve the PORTS program well for years to come.