

Teleippica User Story
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Teleippica Enters the HD Race With Quasar Ph.C
by Mario Sussi, technical director at Teleippica

Teleippica Srl specializes in providing broadcasts of Italian horse races both for betting shops and for satellite distribution, each day handling an average of eight live feeds from Italy and two from abroad. Our company has been offering these services on behalf of the Italian state agency for horse racing, UNIRE, since 2005 and currently delivers live video to 5,000 betting shops across Italy and to more than 10,000 smaller points-of-sale. Our services include provision of three channels for UNIRE and one for our parent company, Snai SpA, a race course management company. We also provide a delayed broadcast of races to SKY ITALIA viewers via an encrypted satellite service.

Italy boasts approximately 30 hippodromes, of which the San Siro Hippodrome in Milan is the most important with respect to horse racing. A minimum of 200 races take place there each year, about 12 races a month during the winter and 20 per month during other seasons. The betting shops that feature live race video have shifted to HD-resolution LCD displays, but the San Siro Hippodrome and other horse racing venues remain equipped with standard definition cameras. As a result, the quality of video displayed at betting shops is rarely good enough to allow viewers to discern the number on each jockey's back. Clearly, this proved to be a significant problem for our customers.

To address the issue of picture quality, we decided to use a professional HD upconverter to upgrade the main stadium race feed, which we then could distribute in HD to our numerous betting shops. With the help of systems integrator Video Progetti, the Milan-based company that oversaw the technical aspects of this project, we evaluated a number of HD conversion systems. Our analysis led us to choose the Quasar Ph.C HDTV upconverter from Snell & Wilcox. Quasar Ph.C features Ph.C motion estimation technology that enables it to yield twice the resolution of other upconverters, and the difference in the live pictures upconverted by the Quasar Ph.C was indeed closer to a true HD image than any of the competing systems we tested. We also found that it offered a variety of useful options that helped us achieve the look most appealing to the human eye, which in the end is what really matters most to viewers.

We purchased our first Quasar Ph.C system in November 2007 and installed it within the main video room at the San Siro Hippodrome. Images captured by standard definition cameras at the hippodrome now are fed into the Quasar Ph.C upconverter, through an HD MPEG-4 encoder and DVB-S2 modulator, and sent to the satellite for distribution. Within a compact 1-RU design that saves space in often-crowded video rooms, the Quasar Ph.C incorporates numerous award-winning processing technologies that can handle the complex combinations of fast motion and fine detail so typical of horse racing. The system's integrated Ph.C motion estimation analyzes incoming images and shifts the pixels in each video field so that they line up perfectly in a full-resolution frame. Thanks to this technology, Quasar Ph.C allows us to maximize picture resolution and enable viewers in betting shops to make out fine details, including the all-important rider numbers, as each race unfolds.

The benefits of working with the Snell & Wilcox Quasar Ph.C system extend beyond the high quality of upconverted images the system delivers. Because it can be inserted easily into an existing workflow, as it was at San Siro Hippodrome, it offers a smooth path to HD. From the perspective of cost savings, the Quasar Ph.C also is appealing. The system has allowed us to

offer live video of exceptional quality to our customers without making a complete transition to HD. Consequently, we have been able to make a significant upgrade to our services while continuing to use much of our existing equipment.

One of the reasons we felt comfortable purchasing the Quasar Ph.C for this project was our positive past experience with other Snell & Wilcox products. Since we took the system online in DATE, the performance of the Quasar Ph.C has lived up to our expectations. During the Verona FieraCavalli international horse festival in November 2007, one of the most renowned events in the equestrian world, we showed upconverted races from Milan with great success. A comparison of images broadcast on our standard definition channels and the MPEG-4 HD feed from the Quasar Ph.C showed that the upconverted video was significantly better not only in technical detail, but also in overall quality.

We are confident that 2008 is going to be an important year for us as we move further into HD delivery of live horseracing video. High-quality upconversion systems like the Quasar Ph.C will be needed in top-level hippodromes, and Italy boasts a number of these. We hope that going forward we will be able to rely on Snell & Wilcox technology to enable exceptional upconversion for other horse racing venues within Italy.

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