



- Stage is Set in Sochi with Events About to Get Underway
- NBC Olympics: Two Locations – One Production System
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- Clear-Com at the Olympic Winter Games in Sochi

## ORF in Sochi with Support from sonoVTS



(20/02/2014) sonoVTS Broadcast from Munich provides the entire broadcast and production technology for the Austrian public broadcaster ORF at the 2014 Olympic Winter Games in Sochi: In the Mountain Broadcast Center (MBC) and in the associated television studio which is located about two kilometers away at the "Haus Austria Tyrol". Here ORF welcomes national and international athletes as well as celebrities.

At the MBC the new Harris IP3 router is at the center of the installation featuring a matrix of 288 inputs and 224 outputs. In addition, seven Harris HVX3 Pro 32x6 multi-viewers are integrated directly into the router.



A total of five 8-channel EVS XT3s with close to 100 TB storage capacity, three EVS IPDirectors and three EVS XTAccess workstations with 10 TB of storage each are installed. The EVS equipment is connected to an editing system with integrated near-line storage which was delivered by ORF. The entire ingest takes place via the EVS XT3s and IPDirectors.



To integrate the multilateral feeds (delivered by the Olympic Broadcasting Services (OBS)) and the unilateral video cross-connections into the production environment a total of ten Lawo V\_pro8 are in use. Each of these highly integrated devices offer eight SDI inputs and outputs for frame-synchronizing, audio de-and embedding, color correction and format conversion as well as audio and video delay. Via redundant MAD1 the audio signals are connected to the Lawo HD core. The sound engineer is operating a Lawo mc^66 with 240 DSPs. For the processing of Dolby E two sets of encoders and decoders are available.



The infrastructure for the processing of a total of about 35 video feeds together with the associated audio channels was realized with maximum flexibility, minimal cabling and high packing density.







The vision mixer is a Sony MVS 8000. Due to the fact that the built-in memory capacity is not sufficient for approximately 40 separator clips with key and fill, a Grass Valley K2 video server is connected to the vision mixer and controlled directly via macros to access the appropriate clip. In order to respond to specific production requirements, a Snell Alchemist standards converter is available.



The intercom is handled via several Riedel Artist matrix systems. The OBS intercom signals are transferred via MADI and are managed at the ORF side with a Riedel RockNet system. From there the cross-links to Riedel Artist and Lawo HD Core are created.

The three transmission paths are set up via the Harris multimedia platform Selenium.



In the remotely operated sub-production located at the "Haus Austria Tyrol" six Sony HDC-2500 cameras and Sennheiser series 9000 wireless microphones are in use. Only the camera shading and the control of the wireless system is taking place here. However, the signals are managed locally via a Harris Platinum router and sent to or received from the MCB. Also at the "Haus Austria Tyrol", a Harris HVX Pro 32x6 Multi Viewer is part of the router and controls the entire monitoring. For all incoming and outgoing lines Lawo V\_pro8 processors are in use.



The entire system is managed via the VSM (virtual studio manager) system controller from L-S-B. At the MBC two redundant servers are in operation. A third VSM server is located at the "Haus Austria Tyrol" running in conjunction with the MBC servers and thus adds another redundancy level. For the operation of the VSM system about 40 L-S-B hardware and software panels are set up.

To ensure that all employees have access to the computers and devices relevant to them, the workstations are administrated and networked via a KVM (keyboard-video-mouse) system from Guntermann and Drunck (CATCenter NEO16).

## Internal Links

[News >> Products >> NBC Olympics: Two Locations... One Production System \(link to <http://live-production.net/news/products/nbc-olympics-two-locations-%E2%80%93-one-production-system.html>\)](http://live-production.net/news/products/nbc-olympics-two-locations-%E2%80%93-one-production-system.html)

[News >> Sports >> Riedel to Provide Massive...n Network at Winter Games \(link to <http://live-production.net/news/sports/riedel-provide-massive-communications-and-signal-distribution-network-winter-games.html>\)](http://live-production.net/news/sports/riedel-provide-massive-communications-and-signal-distribution-network-winter-games.html)

[News >> Products >> ARD and ZDF Utilize Fairlight...o Post Production Systems \(link to <http://live-production.net/news/products/ard-and-zdf-utilize-fairlight-audio-post-production-systems.html>\)](http://live-production.net/news/products/ard-and-zdf-utilize-fairlight-audio-post-production-systems.html)

[News >> Sports >> Review: FIS Alpine Ski World Championships 2013 \(link to <http://live-production.net/news/sports/review-fis-alpine-ski-world-championships-2013.html>\)](http://live-production.net/news/sports/review-fis-alpine-ski-world-championships-2013.html)

## External Links

[Sochi 2014](#)

[OBS](#)

[ORF Sport](#)

[Austria Tyrol House](#)

[EVS](#)

[Genelec](#)

[Grass Valley](#)

[Guntermann & Drunck](#)

[Harris Broadcast](#)

[L-S-B](#)

[Riedel](#)

[Sennheiser](#)

[Snell](#)

[Sony](#)

[Lawo](#)

[TSL](#)

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