

Toshiba, SGI Japan Develops the World's First Full HD File-Base Program Broadcasting Systems

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Master Control Equipment installed at Fuji TV

Toshiba Corporation and SGI Japan, Ltd. today announced that they have developed full HD file-based TV program broadcasting systems and core broadcasting systems, including master control equipment. A terrestrial broadcasting system has already been released and delivered to Japan's Fuji Television Network, Inc., and systems for BS and CS satellite broadcasting are also scheduled for release in due course.

The main systems of a TV broadcasting station cover the master control, distribution center, studio (program recording) and editing functions. Toshiba's newly developed core broadcasting systems support the final transmission of recorded programs, and offer the high reliability and

high speed processing of broadcasts essential for this demanding function.

Until now, TV programs have typically been recorded and edited on video tape, and the various content elements, including video, audio and closed caption, have been compiled, edited and finalized and then uploaded to a playout server, a long, laborious process. Toshiba's new equipment, incorporating a file-base program broadcasting system, supports faster transfers to the playout server, and secures vast improvements in workflow and efficiency.

Toshiba has supervised overall integration of the broadcasting system, including the master control equipment, and the overall planning of the program broadcasting system and materials management. The broadcasting playout server utilizes Toshiba's flash-memory based "VIDEOS," already widely used as a Spot Server System and in Video and Audio File Systems. "VIDEOS" now includes enhanced functionality to support recording of files in the MXF format, automatic unwrap before playing, and a decode capability that reverts MPEG 2 video and audio data to their original formats. These capabilities maintain the uniformity of data for program until broadcasting.

In addition, the master control equipment used to switch programs according to the direction of broadcasting now adopts a triplication system that facilitates prompt responses in emergency situations.

The content server, which stores the vast volume of program data for transmission, was developed by SGI Japan. The content server carries out such processes as loading recorded programs to a VCR, file entry, file transfer, content checks, and previews of high and low resolution. The server file base integrates middleware components that were developed in Europe and that are being used in Japan for the first time. It also conforms with MXF file-based SMPTE 436M and supports

utilization of ancillary data packets for closed captions, again for the first time in Japan..

The system also integrates the tried and tested Omneon Spectrum media server and Omneon MediaGrid active storage system made by Omneon Inc. and Omneon Video Networks of the US, which are in use in broadcasting systems worldwide.

Toshiba and SGI Japan plan to use this experience to propose and market the file base system to other broadcasting stations.

Provided by Toshiba

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