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28 March 2008

Dr. Riyadh Najm
Chair, WBU-TC
Saudi Arabia Ministry of Culture and Information
P.O. Box 10152
Riyadh 11433
Saudi Arabia

Dear Riyadh,

At the last WBU-ISOG Conference Call meeting of March 12th, 2008 the chair requested the undersigned, acting as the WBU-TC/ISOG Liaison, to raise questions related to the use of HD 1080i and 720P formats for international programming exchange.

The use of both HD formats by broadcasters has created the necessity to perform new processes namely HD cross-conversion and HD Frame Rate Conversion during international programming exchange. Moreover, the increasing interest in adopting MPEG-4 compression technology for contribution and international programming exchange applications, which concatenated with the various cross-conversions and frame rate conversions is creating a new group of issues that broadcasters must deal with rather sooner than later. Therefore, the questions to ask to the WBU-TC are the followings:

1. What would be the impact on the HD programme picture quality after formats' cross conversion between 1080i and 720P, and concatenated with MPEG-4 compression and decompression on international programme exchange?
2. What would be the impact on the HD programme picture quality after formats' cross conversion plus concatenated with MPEG-4 compression and decompression, and after undergoing through a frame rate converter on international programme exchange?
3. Where is the ideal place (in terms of image quality, bit-rate advantages) for converting from one image format to the other – before or after the contribution encoding process. This is to be evaluated also for MPEG-2 based contribution links.

These possible scenarios are expected in HD programming exchange and would require an investigation. The findings of this investigation would be used to develop a set of operational recommended practices, which would be of great benefit to the international broadcast community.

I thank you for WBU-TC consideration and welcome your feedback. As a suggestion, this issue could be included in the agenda of the upcoming WBU-TC meeting of May 13th, 2008 hosted by ZDF in Mainz, Germany.

Best Regard

Anthony Caruso, P. Eng.
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