

A Study of MXF Extension of Mapping HEVC Stream for UHD Broadcasting Contents Production

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Abstract— Terrestrial UHD broadcasting will be started from February in 2017. Therefore, it is obvious that UHD contents production in broadcasting studio will be rapidly increasing. MXF (Material exchange format) is a standard for interchanging contents among devices in broadcasting production workflow. However, HEVC stream is not supported in the current MXF standards. Thus, we propose a mapping method of HEVC stream into MXF. Fortunately, HEVC is a successor of H.264 and also mapping of H.264 stream into MXF generic container exists in current MXF standards, ST 381-3. Thus, we propose a mapping method of HEVC stream into MXF generic container based on ST 381-3. However, there are some differences between HEVC and H.264, especially random access point pictures and leading pictures. Therefore we also proposed how to handle those pictures in the mapping of HEVC stream into MXF. From the experimental results, we could confirm that the proposed method is working properly. We plan to submit the proposed method as a new standard to SMPTE.

Keyword— MXF, HEVC, UHD, RAP, Broadcasting contents



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