

Title: HEVC field-coded sequences vs. deinterlaced progressive coding

Status: Input Document to JCT-VC

Purpose: Informative

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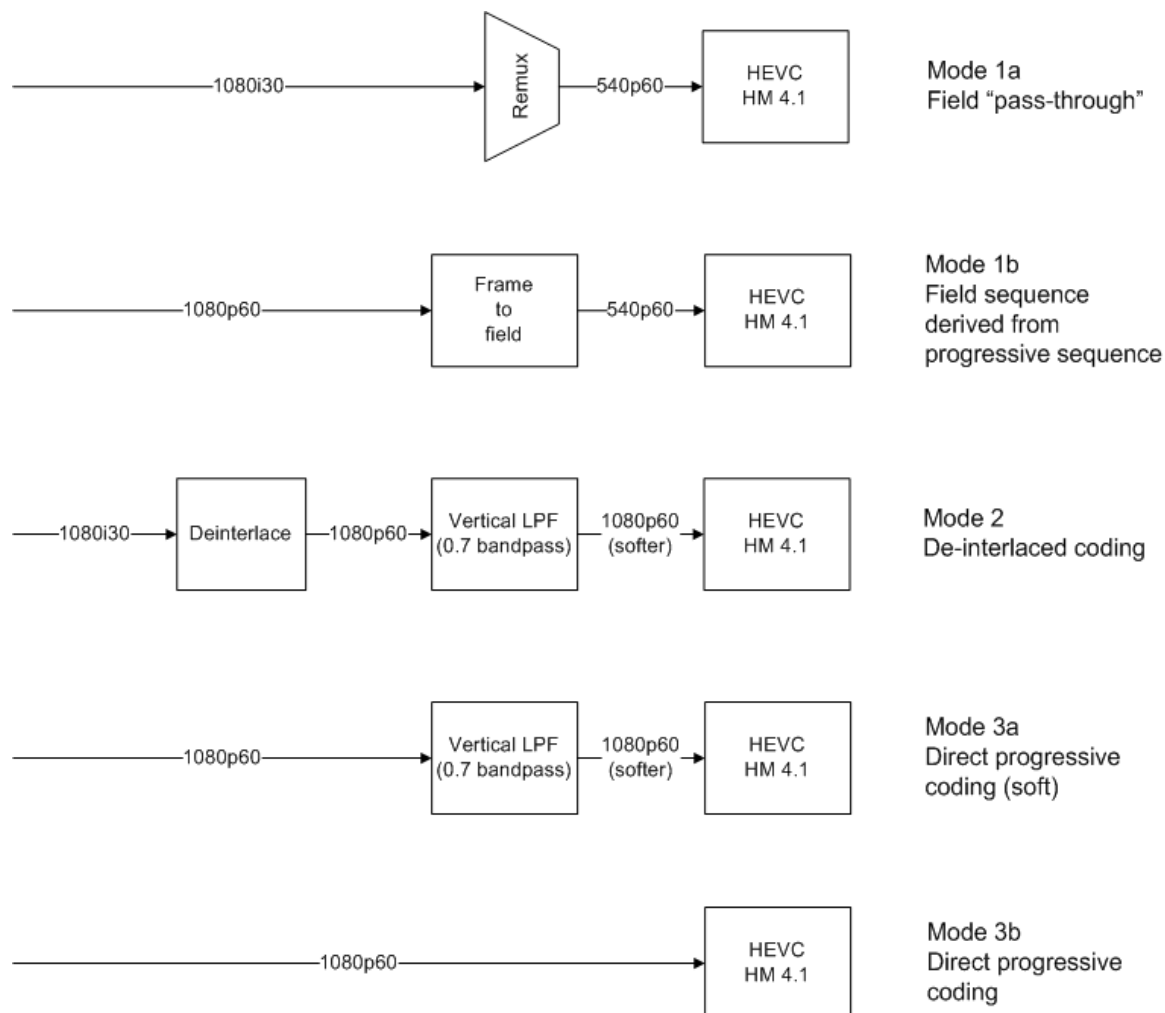
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Abstract

With no modifications to the Video Coding Layer (VCL), HM 4.1 achieves -25% better efficiency (Mode 1a) on field sequences compared to direct coding of interleaved frames, while deinterlaced content (Mode 2) saw a +50% increase in bitrate over Mode 1a due to artifacts of several “high-end” deinterlacers. A likely conclusion is that content purely captured as fields should be encoded as fields, while native progressive sequence coding (Mode 3b) as per HM 4.1, without the pre-softening step of Mode 3b, incur <10% higher rate than equivalent field sequences derived from them (Mode 1b). This study is preliminary.

1 Experiment

Comparisons were conducted similar to the arrangements of Fig. 13 of Hoffmann et al [1]



2 References

- [1] [H. Hoffmann, T. Itagaki, D. Wood, A. Bock. \(2006\)](#) “Studies on the bit rate requirements for a HDTV format with 1920x1080 pixel resolution, progressive scanning at 50 Hz frame rate targeting large flat panel displays.” *IEEE Transactions on Broadcasting*. 52(4): 420-434. ISSN 0018-9316. DOI: 10.1109/TBC.2006.884735