

Abstract: A Novel Fast Mode Decision Algorithm on the Enhancement Layer in H.264/AVC Scalable Video Coding

Sangwoo Lee, Sang Ju Park*
*School of Electronic & Electrical Engineering, Hongik University,
72-1, Sangsu-Dong, Mapo-Gu, Seoul, Korea 121-791,
+82-2-320-1475, +82-2-320-1119 (FAX)
klasesw@mail.hongik.ac.kr, sjpark@hongik.ac.kr**

Abstract

Scalable video coding (SVC) is standardized as an H.264/AVC extension, by JVT at November, 2007. The characteristic of the SVC is the encoding of a high-quality video bitstream that contains one or more subset bitstreams that can themselves be decoded with an existing H.264/AVC decoder. We propose a new algorithm for SVC that can quickly decide the enhancement layer macro block (MB) mode using lower layers' statistical characteristics. The proposed algorithm limits the candidate MB modes to modes predicted from the base layer for spatial scalable coding. The algorithm can reduce the encoding time while almost maintaining PSNR and bitrate.

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