

(File: H.264 Slides.ppt *or review of H.264/MPEG-4 part 10*)

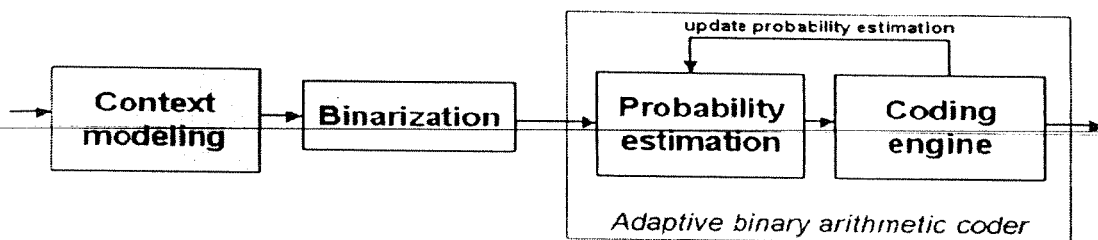
VC Algorithm : Entropy Coding

- ▣ **CABAC** : utilizes the arithmetic coding, also in order to achieve good compression, the probability model for each symbol element is updated. Both MV and residual transform coefficients are coded by CABAC.
- ▣ **Encoding steps**

- ◊ *step 1 : context modeling: Choose a suitable model*
- ◊ *step 2 : binarization: If a symbol is non-binary valued it will be mapped into a sequence of binary decisions called bins*
- ◊ *step 3 : binary arithmetic coding using probability estimates provided by context modeling*

CABAC : Context Adaptive Binary Arithmetic coding

H.264 Latest video coding standard adopted by VCEG (ITU-T) and MPEG (ISO/IEC),
 (Video Coding Expert Group) (Moving Picture Expert Group)
 (The two groups are called JVT: Joint Video Team)
 See G. Sullivan and T. Wiegand, "Video Compression — from concepts to H.264/AVC standard", Proc IEEE, vol. 93, pp. 18-31, Jan 2005.



CABAC increases compression efficiency by 10% over CAVLC but computationally more intensive

See also ¹⁾ T. Wiegand and G. J. Sullivan, "The H.264/AVC video coding standard," IEEE SP Magazine, vol. 24, pp. 14-8-153, March 2007. (Info on H.264/AVC resources)

2) Special issue on "Emerging H.264/AVC video coding standard" ⁵⁹
 J. VC IR, vol. 17, April 2006. (go to science Direct)