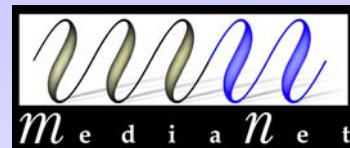


Post-processing Tools for H.264

Video Adaptive Playout System based on physical Motion Field Estimation

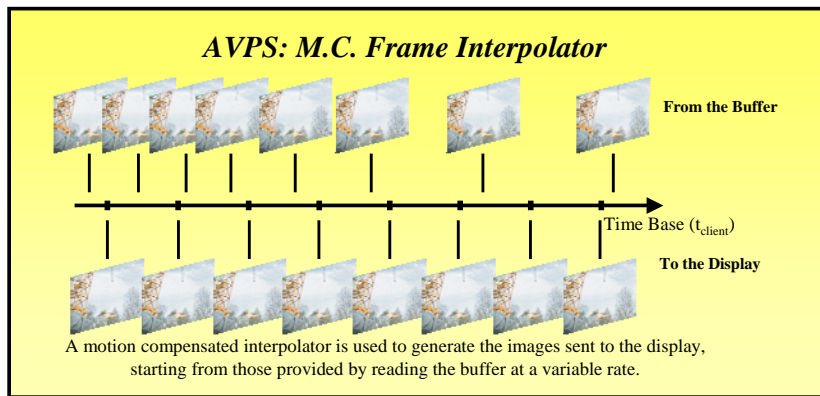
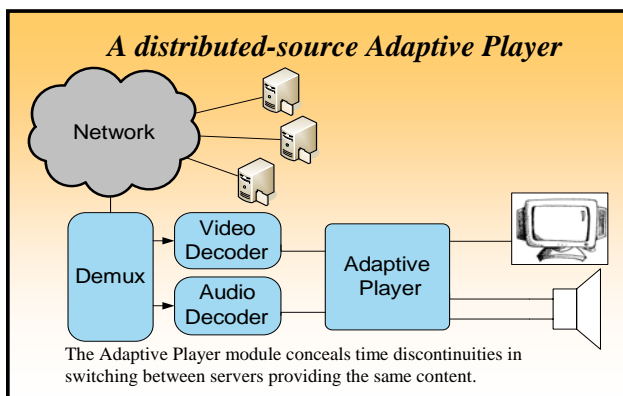
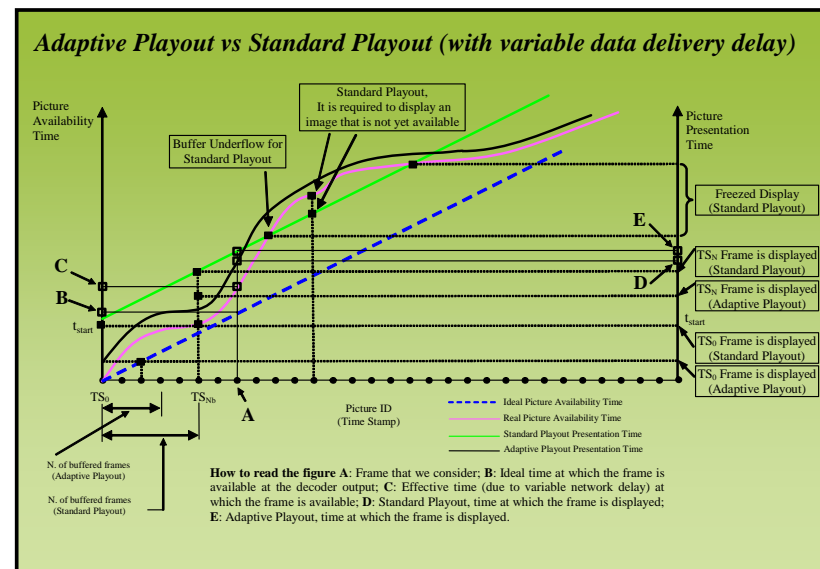
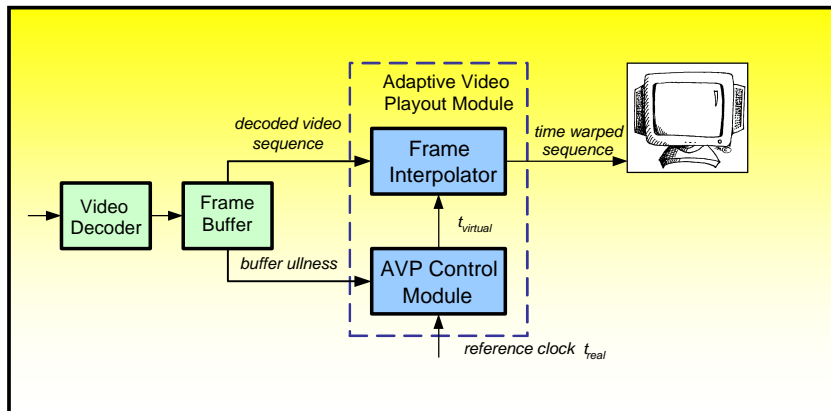


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Application Area: Rendering of multimedia material distributed over a “best-effort” network that is unable to guarantee a constant delay in the delivery of the data packets.

“Traditional” Approach: Pre-buffering at the decoder side. It “cushions” the variations of delivery delay, but forces the final user to wait a great deal before the rendering starts (very annoying during “zapping” among several channels) and may easily generate freezing of the video in case of pre-buffer underflow.

“Key Idea”: The clock rate used for identifying the image to display is influenced by the data buffer fullness. Only a very small input buffer is needed, buffer underflow is avoided.



The current implementation of the adaptive playout system works in real-time with SDTV sequences on an off-the-shelf hardware (Pentium 4 3Ghz).