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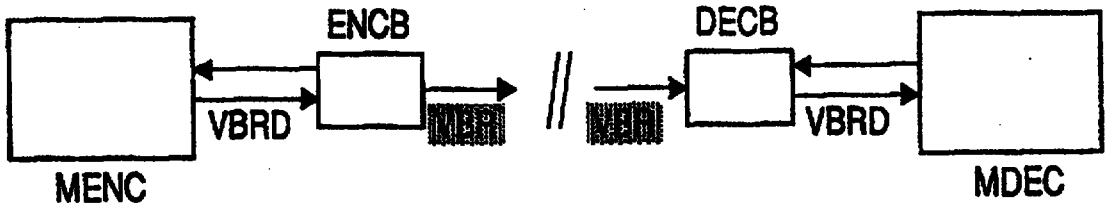
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(54) Title: METHOD AND APPARATUS FOR ENCODING OR DECODING DIGITAL VIDEO DATA




(57) Abstract

In a constant bit rate coder the kernel MPEG encoder circuit is followed by a buffer of a certain physical size. This buffer is used to smooth the variable bit rate output of the kernel MPEG encoder. The video buffering verifier (VBV) is a concept used in encoder control that gives an upper bound for the usable encoder buffer size as well as the minimum buffer size needed by a decoder to decode all bitstreams. The quantiser control parameters can vary more - thereby improving the resulting picture quality - if a virtual buffer size is introduced which is greater than the size of the physical buffer. The bit rate control is intended for applications using storage devices with the capability to process a variable bit rate data stream (DVD). Therefore the encoder control strategy is adapted to this situation. For the first e.g. 80 % of the total playing time an average bit rate is produced which is e.g. 95 % only of the normal average bit rate. For the remaining 20 % of the playing time the value for the desired average bit rate ascends to e.g. 150 % of the normal value. During the first 80 % the virtual buffer size is increased by a factor of e.g. 100 whereas during the last 20 % the virtual buffer size descends to the normal value.