Abstract

Multimedia support on hand-held devices is growing rapidly. The introduction of 3D videos in cinemas and on home entertainment systems has made it appealing on mobile environment devices. MVC (Multiview Video Coding) provides a compressed representation of multiple views in a single scene. However, handheld devices have hardware constraints that makes it challenging to support high-definition content and increases the complexity of the algorithms used. Due to this, an advanced processor with the capabilities of low power consumption and high instruction computation is needed. Compression standards such as H. 264/MPEG-4 and its amendment, AVC (Advanced Video Coding), have had great success in video compression. However, more complex algorithms and significantly higher processing power are necessary. As an extension to this standard, MVC was introduced for 3D stereo video support. Conventional processors contain coprocessors that support Single Instruction and Multiple Data technology. Some arithmetic operations are also supported on the main processor. Therefore these features can reduce the decoding time of the MVC decoding process.
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Index Terms

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