Method and Device for Video Predictive Encoding

Abstract

An embodiment of the invention provides a method for video predictive encoding. Firstly, extract a pixel block from current frame, divide the pixel block into a principal set of pixels and a complementary set of pixels; encode the principal set of pixels, output code stream of the principal set of pixels, obtain a reconstruction value of the principal set of pixels; interpolate to reconstructed pixel values, which include the reconstruction value of the principal set of pixels, take a result as predictive value of the complementary set of pixels, execute an intra-frame predictive encoding for the complementary set of pixels, output code stream of the complementary set of pixels, obtain a reconstruction value of the complementary set of pixels; and finally combine the reconstruction value of the principal set of pixels and the reconstruction value of the complementary set of pixels, and obtain a reconstruction value of the pixel block.Another embodiment of the invention also provides a device for video predictive encoding. By adopting implementation modes of the invention, compression efficiency of video encoding may be improved, implementation complexity may be lower, memory occupation may be saved, and cache hit rate may be improved. The implementation modes of the invention are suitable for highly parallel calculation, and may execute rapid encoding compression for a high-definition video source.

Figure 1