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(71) 申请人 (对除美国外的所有指定国): **清华大学 (TSINGHUA UNIVERSITY)** [CN/CN]; 中国北京市海淀区清华园 1 号, Beijing 100084 (CN)。 **腾讯科技（深圳）有限公司 (TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。

(72) 发明人; 及

(75) 发明人/申请人 (仅对美国): **陶品 (TAO, Pin)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。 **吴文婷 (WU, Wenting)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。 **肖谋 (XIAO, Mou)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。 **温江涛 (WEN, Jiangtao)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。 **谷沉沉 (GU, Chenchen)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。 **吕静 (lv, Jing)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。 **盛馥钟 (SHENG, Fuzhong)** [CN/CN]; 中国广东省深圳市福田区振兴路赛格科技园 2 栋东 4 楼, Guangdong 518044 (CN)。

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(54) **Title**: METHOD AND DIVECE FOR VIDEO PREDICTIVE ENCODING

(54) **发明名称** : 一种视频预测编码方法和装置

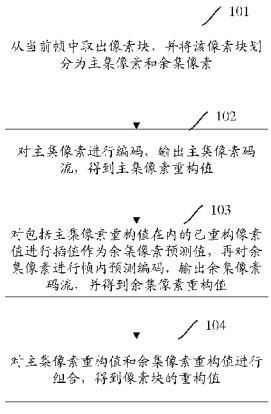


图 1 / FIG. 1

101 EXTRACTING A PIXEL BLOCK FROM THE CURRENT FRAME, AND DIVDING THE PIXEL BLOCK INTO A PRINCIPLE SET OF PIXELS AND A COMPLEMENTARY SET OF PIXELS

102 ENCODING THE PRINCIPAL SET OF PIXELS, OUTPUTTING THE CODE STREAM OF THE PRINCIPAL SET OF PIXELS AND OBTAINING RECONSTRUCTION VALUES OF THE PRINCIPAL SET OF PIXELS

103 INTERPOLATING RECONSTRUCTED PIXEL VALUES INCLUDING THE RECONSTRUCTION VALUES OF THE PRINCIPAL SET OF PIXELS AND UTILIZING THE RESULT AS PREDICTED VALUES OF THE COMPLEMENTARY SET OF PIXELS, THEN CONDUCTING INTRA-FRAME PREDICTIVE ENCODING TO THE COMPLEMENTARY SET OF PIXELS, OUTPUTTING THE CODE STREAM OF THE COMPLEMENTARY SET OF PIXELS AND OBTAINING RECONSTRUCTION VALUES OF THE COMPLEMENTARY SET OF PIXELS

104 COMBINING THE RECONSTRUCTION VALUES OF THE PRINCIPAL SET OF PIXELS AND THE RECONSTRUCTION VALUES OF THE COMPLEMENTARY SET OF PIXELS TO GET THE RECONSTRUCTION VALUES OF THE PIXEL BLOCK

(57) **Abstract**: Disclosed is a video prediction encoding method by embodiments of the present invention, wherein the method includes the following steps of: extracting a pixel block from the current frame and dividing the pixel block into a principal set of pixels and a complementary set of pixels (101); encoding the principal set of pixels, outputting the code stream of the principal set of pixels and obtaining reconstruction values of the principal set of pixels (102); interpolating reconstructed pixel values including the reconstruction values of the principal set of pixels and utilizing the result as predicted values of the complementary set of pixels, then conducting intra-frame predictive encoding to the complementary set of pixels, outputting the code stream of the complementary set of pixels and obtaining reconstruction values of the complementary set of pixels (103); combining the reconstruction values of the principal set of pixels and the reconstruction values of the complementary set of pixels to get the reconstruction values of the pixel block (104). The embodiments of the invention further disclose a device for video predictive encoding. The application of the embodiments of the invention can improve the compression efficiency of video encoding, and has lower implementation complexity, thereby saving memory occupation and improving the hit rate of high speed cache. The present invention is quite suitable for the realization of highly parallel calculation and can conduct fast encoding compression to a high-definition video source.

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