

ABSTRACT

METHOD AND DEVICE FOR FRAME INTERPOLATION OF A MOVING IMAGE (ref Fig 1)

A method of forming an interpolated image corresponding to a given temporal distance ratio between a first and a second image comprising, respectively, a first image is described in which the first and second images include a first and a second 3-D shape model of an object having respective shading values and that there is a 3-D motion vector defining the transformation between the first and the second 3-D shape models. The method comprises a) adjusting the interpolation 3-D motion vector (V_{ab}) to obtain an interpolation 3-D motion vector (V_i); b) forming an interpolation 3-D shape model (M_i) from the interpolation 3-D motion vector (V_i) and either the first or the second 3-D shape model (M_a, M_b); and c) forming an interpolation image from the interpolation 3-D shape model and the image shaping values from the first and second 3-D shape models. The invention aims to provide a method and device for frame interpolation of a moving image which remedies block-shaped distortion in interpolated frames, and which can reproduce smooth movement even when the input image includes movement in 3-dimensional space. Apparatus is also described for carrying out the above method.

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