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Abstract

MOTION VECTOR SELECTION BASED ON A PREFERRED POINT

A method of selecting a motion vector for use in a motion estimation system is disclosed. The motion vector defines movement of a block of pixels between a search window and a reference frame. The method includes the steps of scanning a search window in a fixed order for a suitable match with an area of the reference frame such that each search position within a current row or column of the window is one pixel away from a previous search position, defining a preferred point in the search window, calculating a primary norm function with reference to the preferred point for a given position in each row or column, calculating a norm function for each search position based on a linear increment of the primary norm function for the respective row or column, calculating an Absolute Error (AE) for each search position, based on a difference between a given property of the search position and a position in the reference window, and selecting a motion vector, the displacement of the motion vector being defined in terms of the search position having the smallest AE and the smallest norm function. Apparatus for performing the method is also disclosed.

Figure 3

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