

## METHOD AND APPARATUS FOR COMPARING DATA SETS

### ABSTRACT

A method and apparatus for generating a sequence of displacement vectors and associated minimal error values. The vectors and associated values represent the best match of a current block (40) of elements of a first frame (74) of a signal with one of a plurality of search blocks (61) of elements located within a corresponding search window (41) of a second frame (72, 73). A first stream of data, representing the elements of the first frame is transmitted to a linear array (70) of processing units (pu0-pu255); a second stream of data, representing the elements of the second frame is transmitted to the array; a hybrid stream of data from the elements of the second stream is synthesized such that the elements of the hybrid stream are aligned in time with the elements of the first stream so as to enable each processing unit of the array to compute an error between a particular current block (40) and a different search block of the corresponding search window (41). The error is a measure of the difference between two blocks of elements. Specifically, the errors are computed between each current block and each search block of the corresponding search windows such that each processing unit of the array outputs the computed error essentially immediately after the previous unit outputs the error.

FIGURE 1.