

ABSTRACT

PROCESSING IMAGE DATA

Telescopic predictive coding of video frames reduces
5 the number of pixels in a reference frame which are required
to be processed. However, given that offsets for adjacent
blocks may differ, it is difficult to parallel process the
reference data for real-time coding. After first-frame
motion vectors have been calculated, a region of the
10 reference pixels is read which is large enough to accommodate
the direct calculation of motion vectors for the second
frame, thus allowing pixel values to be processed in
parallel. However, although all of the read pixels are made
available to each processor, the processors only latch the
15 values which are actually required for the particular motion
vector being calculated. This is achieved by supplying an
enabling signal to the processors, which is determined by
processing the first-frame motion vectors.

20 Figure 9