CLAIMS

1. A method of encoding or decoding video data, the method comprising:

determining a motion vector for a block of video data using a decoder side motion vector derivation process that includes performing an iterative search process, wherein performing the iterative search process includes:

determining a minimum cost through a previous search iteration;

updating an overall minimum cost through a current search iteration;

calculating a difference of the minimum cost through the previous search iteration and the overall minimum cost through the current search iteration; and

terminating the iterative search process early based on the difference relative to a difference threshold; and

encoding or decoding the block of video data using the motion vector.

2. The method of claim 1, wherein the previous search iteration immediately precedes the current search iteration in the iterative search process.

3. The method of claim 1, further comprising:

calculating the overall minimum cost through the current search iteration based on at least a current subset of candidate positions.

4. The method of claim 1, wherein the difference threshold is based on a size of the block.

5. The method of claim 1, wherein the iterative search process includes more than two iterations.

6. The method of claim 1, wherein performing the iterative search process includes performing bilateral matching or template matching.

7. A device for processing video data, the device comprising:

memory configured to store the video data; and

processing circuitry configured to:

determine a motion vector for a block of the video data using a decoder side motion vector derivation process that includes an iterative search process, wherein to perform the iterative search process the processing circuitry is further configured to:

determine a minimum cost through a previous search iteration;

update an overall minimum cost through a current search iteration;

calculate a difference of the minimum cost through the previous search iteration and the overall minimum cost through the current search iteration; and

terminate the iterative search process early based on the difference relative to a difference threshold; and

encode or decode the block of video data using the motion vector.

8. The device of claim 7, wherein the previous search iteration immediately precedes the current search iteration.

9. The device of claim 7, wherein to perform the iterative search process the processing circuitry is further configured to calculate the overall minimum cost through the current search iteration based on at least a current subset of candidate positions.

10. The device of claim 7, wherein the difference threshold is based on a size of the block.

11. The device of claim 7, wherein the iterative search process includes more than two iterations.

12. The device of claim 7, wherein to perform the iterative search process the processing circuitry is configured to perform bilateral matching or template matching.

13. The device of claim 7, further comprising a display configured to display the video data.

14. The device of claim 7, wherein the device comprises one or more of a camera, a computer, a mobile device, a broadcast receiver device, or a set-top box.

15. The device of claim 7, wherein the device comprises a camera configured to capture the video data.