

WHAT IS CLAIMED IS:

1. A method of decoding video data comprising:
 - predicting a block of the video data according to a combined inter / intra prediction mode to generate a predicted block, comprising generating a weighted combination of an intra-prediction of the block and an inter-prediction of the block, comprising:
 - determining that an inter-prediction merge candidate is to be used for the inter-prediction and that the inter-prediction merge candidate is a bi-prediction candidate for which a non-equal weighting is otherwise indicated for bi-prediction of the block; and
 - applying an equal weighted averaging to perform the inter-prediction for the combined inter / intra prediction to generate the predicted block; and
 - decoding the block of video data based on the predicted block.
2. The method of Claim 1, further comprising decoding a weight index for the inter-prediction merge candidate that indicates a non-equal weighting is to be used for bi-prediction of the block.
3. The method of Claim 1, further comprising performing the intra-prediction for the block.
4. The method of Claim 1, further comprising decoding data indicative of the combined inter / intra prediction mode from an encoded video bitstream.
5. A method of encoding video data comprising:
 - predicting a block of the video data according to a combined inter / intra prediction mode to generate a predicted block, comprising generating a weighted combination of an intra-prediction of the block and an inter-prediction of the block, comprising:
 - determining that an inter-prediction merge candidate is to be used for the inter-prediction and that the inter-prediction merge candidate is a bi-prediction candidate for which a non-equal weighting is otherwise indicated for bi-prediction; and

applying an equal weighted averaging to perform the inter-prediction for the combined inter / intra prediction to generate the predicted block; and

encoding the block of video data based on the predicted block.

6. The method of Claim 5, further comprising encoding a weight index for the inter-prediction merge candidate that indicates a non-equal weighting is to be used for bi-prediction of the block.
7. The method of Claim 5, further comprising modifying a weight index for the inter-prediction merge candidate that indicates an equal weight is to be used.
8. The method of Claim 5, further comprising performing the intra-prediction for the block.
9. The method of Claim 8, wherein performing the intra-prediction comprises performing prediction according to a DC prediction mode based on the mode being a combined inter / intra prediction mode.
10. The method of Claim 5, further comprising encoding data indicative of the combined inter / intra prediction mode into an encoded video bitstream.
11. The method of Claim 5, further comprising performing a rate distortion analysis to select the combined inter / intra prediction mode.
12. The method of Claim 5, further comprising capturing the video data using a video capture device.
13. An apparatus for encoding or decoding video data, comprising:
 - a memory configured to store one or more reference pictures of the video data;
 - a video processor configured to:
 - predict a block of the video data according to a combined inter / intra prediction mode to generate a predicted block, wherein the video processor is configured to generate a weighted combination of an intra-prediction of the block and an inter-prediction of the block, and wherein to generate the weighted combination, the processor is configured to:

determine that an inter-prediction merge candidate is to be used for the inter-prediction and that the inter-prediction merge candidate is a bi-prediction candidate for which a non-equal weighting is otherwise indicated for bi-prediction; and

apply an equal weighted averaging to perform the inter-prediction for the combined inter / intra prediction to generate the predicted block; and

encode or decode the block of video data based on the predicted block.

14. The apparatus of Claim 13, wherein the apparatus comprises one or more of a camera, a computer, a mobile device, a broadcast receiver device, or a set-top box.
15. The apparatus of Claim 13, further comprising a video capture device configured to capture a picture that includes the block of video data.
16. The apparatus of Claim 13, further comprising display configured to display a picture that includes the block of video data.
17. The apparatus of Claim 13, wherein the video processor is further configured to encode a weight index for the inter-prediction merge candidate that indicates a non-equal weighting is to be used for bi-prediction of the block.
18. The apparatus of Claim 17, wherein the video processor is further configured to modify a weight index for the inter-prediction merge candidate that indicates an equal weight is to be used.
19. The apparatus of Claim 13, wherein the video processor is further configured to perform the intra-prediction for the block.
20. The apparatus of Claim 19, wherein to perform the intra-prediction, the video processor is configured to perform prediction according to a DC prediction mode based on the mode being a combined inter / intra prediction mode.
21. The apparatus of Claim 13, wherein the video processor is further configured to encode data indicative of the combined inter / intra prediction mode into an encoded video bitstream.

22. The apparatus of Claim 13, wherein the video processor is further configured to perform a rate distortion analysis to select the combined inter /intra prediction mode.