CLAIMS

Claim 1: A method of decoding video data, the method comprising:

constructing an initial candidate list based on spatial neighboring motion vector candidates;

constructing a history-based candidate list by storing motion information of reconstructed blocks into the history-based candidate list as candidates of the history-based candidate list;

identifying a subset of candidates of the history-based candidate list by:

excluding motion information of two most recently reconstructed blocks of the history-based candidate list;

identifying motion information of a third most recently reconstructed block of the history-based candidate list; and

identifying motion information of every fourth candidate after the third most recently reconstructed block of the history-based candidate list;

generating a candidate list based on the identified subset of candidates of the history-based candidate list and the initial candidate list; and

reconstructing a current block based on the generated candidate list.

Claim 2: The method of claim 1, further comprising:

identifying a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identifying a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein identifying the subset of candidates of the history-based candidate list comprises identifying the second subset of the one or more candidates of the history-based candidate list.

Claim 3: The method of claim 2, wherein identifying the first subset of one or more candidates comprises identifying two candidates of the history-based candidate list corresponding to motion information of two most recently reconstructed blocks, and wherein identifying the subset of candidates of the history-based candidate list comprises identifying the second subset of the one or more candidates of the history-based candidate list.

Claim 4: The method claim 1, wherein identifying the subset of candidates of the history-based candidate list comprises sub-sampling the history-based candidate list by sub-sampling starting from an earliest added candidate in the history-based candidate list.

Claim 5: The method of claim 1, wherein constructing the history-based candidate list comprises constructing the history-based candidate list without pruning the history-based candidate list.

Claim 6: The method of claim 1, wherein the candidate list comprises one of a merge list or an advanced motion vector prediction (AMVP) list.

Claim 7: The method of claim 1, further comprising:

identifying a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identifying a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein identifying the subset of candidates of the history-based candidate list comprises sub-sampling the second subset.

Claim 8: The method of claim 1, wherein reconstructing a current block based on the generated candidate list comprises:

receiving information indicative of an index into the generated candidate list;

determining motion information for the current block based on motion information stored in the generated candidate list identified by the index into the generated candidate list;

determining a prediction block based on the determined motion information;

receiving information indicative of a residual between the prediction block and the current block; and

reconstructing the current block based on the residual and the prediction block.

Claim 9: A device for decoding video data, the device comprising:

a memory configured to store a history-based candidate list; and

a processor configured to:

construct an initial candidate list based on spatial neighboring motion vector candidates;

construct the history-based candidate list by storing, in the memory, motion information of reconstructed blocks into the history-based candidate list as candidates of the history-based candidate list;

identify a subset of candidates of the history-based candidate list, wherein to identify the subset of candidates, the processor is further configured to:

exclude motion information of two most recently reconstructed blocks of the history-based candidate list;

identify motion information of a third most recently reconstructed block of the history-based candidate list; and

identify motion information of every fourth candidate after the third most recently reconstructed block of the history-based candidate list;

generate a candidate list based on the identified subset of candidates of the history-based candidate list and the initial candidate list; and

reconstruct a current block based on the generated candidate list.

Claim 10: The device of claim 9, wherein the processor is configured to:

identify a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identify a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein to identify the subset of candidates of the history-based candidate list, the processor is configured to identify the second subset of the one or more candidates of the history-based candidate list.

Claim 11: The device of claim 10, wherein to identify the first subset of one or more candidates, the processor is configured to identify two candidates of the history-based candidate

list corresponding to motion information of two most recently reconstructed blocks, and wherein to identify the subset of candidates of the history-based candidate list, the processor is configured to identify the second subset of the one or more candidates of the history-based candidate list.

Claim 12: The device of claim 9, wherein to identify the subset of candidates of the history-based candidate list, the processor is configured to sub-sample starting from an earliest added candidate in the history-based candidate list.

Claim 13: The device of claim 9, wherein to construct the history-based candidate list, the processor is configured to construct the history-based candidate list without pruning the history-based candidate list.

Claim 14: The device of claim 9, wherein the candidate list comprises one of a merge list or an advanced motion vector prediction (AMVP) list.

Claim 15: The device of claim 9, wherein the processor is configured to:

identify a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identify a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein to identify the subset of candidates of the history-based candidate list, the processor is configured to sub-sample the second subset.

Claim 16: The device of claim 9, wherein to reconstruct a current block based on the generated candidate list, the processor is configured to:

receive information indicative of an index into the generated candidate list;

determine motion information for the current block based on motion information stored in the generated candidate list identified by the index into the generated candidate list;

determine a prediction block based on the determined motion information;

receive information indicative of a residual between the prediction block and the current block; and

reconstruct the current block based on the residual and the prediction block.

Claim 17: The device of claim 9, wherein the processor comprises a video decoder comprising at least one of fixed-function or programmable circuitry.

Claim 18: A method of encoding video data, the method comprising:

constructing an initial candidate list based on spatial neighboring motion vector candidates;

constructing a history-based candidate list by storing motion information of reconstructed blocks into the history-based candidate list as candidates of the history-based candidate list;

identifying a subset of candidates of the history-based candidate list by:

excluding motion information of two most recently reconstructed blocks of the history-based candidate list;

identifying motion information of a third most recently reconstructed block of the history-based candidate list; and

identifying motion information of every fourth candidate after the third most recently reconstructed block of the history-based candidate list;

generating a candidate list based on the identified subset of candidates of the history-based candidate list and the initial candidate list; and

signaling information indicative of an index into the generated candidate list to identify motion information used to reconstruct a current block.

Claim 19: The method of claim 18, further comprising:

identifying a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identifying a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein identifying the subset of candidates of the history-based candidate list comprises identifying the second subset of the one or more candidates of the history-based candidate list.

Claim 20: The method of claim 19, wherein identifying the subset of candidates comprises sub-sampling the history-based candidate list to identify the subset of candidates, and wherein identifying the subset of candidates of the history-based candidate list comprises identifying the second subset of the one or more candidates of the history-based candidate list.

Claim 21: The method of claim 18, wherein constructing the history-based candidate list comprises constructing the history-based candidate list without pruning the history-based candidate list.

Claim 22: The method of claim 18, further comprising:

identifying a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identifying a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein identifying the subset of candidates of the history-based candidate list comprises sub-sampling the second subset.

Claim 23: The method of claim 18, further comprising:

signaling information indicative of a residual between a prediction block identified based on the motion information used to reconstruct the current block.

Claim 24: A device for encoding video data, the device comprising:

a memory configured to store a history-based candidate list; and

a processor configured to:

construct an initial candidate list based on spatial neighboring motion vector candidates;

construct the history-based candidate list by storing, in the memory, motion information of reconstructed blocks into the history-based candidate list as candidates of the history-based candidate list;

identify a subset of candidates of the history-based candidate list, wherein to identify the subset of candidates, the processor is further configured to:

exclude motion information of two most recently reconstructed blocks of the history-based candidate list;

identify motion information of a third most recently reconstructed block of the history-based candidate list; and

identify motion information of every fourth candidate after the third most recently reconstructed block of the history-based candidate list;

generate a candidate list based on the identified subset of candidates of the history-based candidate list and the initial candidate list; and

signal information indicative of an index into the generated candidate list to identify motion information used to reconstruct a current block.

Claim 25: The device of claim 24, wherein the processor is configured to:

identify a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identify a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein to identify the subset of candidates of the history-based candidate list, the processor is configured to identify the second subset of the one or more candidates of the history-based candidate list.

Claim 26: The device of claim 24, wherein to construct the history-based candidate list, the processor is configured to construct the history-based candidate list without pruning the history-based candidate list.

Claim 27: The device of claim 24, wherein the processor is configured to:

identify a first subset of one or more candidates of the history-based candidate list corresponding to motion information of recently reconstructed blocks; and

identify a second subset of one or more candidates of the history-based candidate list that excludes the first subset,

wherein to identify the subset of candidates of the history-based candidate list, the processor is configured to sub-sample the second subset.

Claim 28: The device of claim 24, wherein the processor is configured to:

signal information indicative of a residual between a prediction block identified based on the motion information used to reconstruct the current block.

Claim 29: The device of claim 24, wherein the processor comprises a video encoder comprising at least one of fixed-function or programmable circuitry.