

CLAIMS

What is claimed is:

1. A method implemented by a decoder, the method comprising:
receiving, by the decoder, a bitstream comprising a coded layer video sequence (CLVS) for a layer and a sequence parameter set (SPS) referred to by the CLVS, wherein the SPS has a network abstraction layer (NAL) unit header layer identifier (nuh_layer_id) value equal to a nuh_layer_id value of the CLVS when the layer does not use inter-layer prediction; and
decoding, by the decoder, a coded picture from the CLVS based on the SPS to produce a decoded picture.
2. The method of claim 1, wherein GeneralLayerIdx[nuh_layer_id] is equal to a current layer index.
3. The method of any of claims 1-2, wherein a video parameter set (VPS) independent layer flag (vps_independent_layer_flag) specifies whether a corresponding layer uses inter-layer prediction.
4. The method of any of claims 1-3, wherein the layer does not use inter-layer prediction when vps_independent_layer_flag[GeneralLayerIdx[nuh_layer_id]] is equal to one.
5. The method of any of claims 1-4, wherein the SPS includes a SPS VPS identifier (sps_video_parameter_set_id) that specifies a value of an identifier (ID) for a VPS referred to by the SPS, and wherein the vps_independent_layer_flag[GeneralLayerIdx[nuh_layer_id]] is inferred to be equal to one when sps_video_parameter_set_id is equal to zero.
6. The method of any of claims 1-5, wherein the SPS does not refer to a VPS when the sps_video_parameter_set_id is equal to zero.
7. The method of any of claims 1-6, wherein the CLVS is a sequence of coded pictures with the same nuh_layer_id value.

8. A method implemented by an encoder, the method comprising:
 - encoding, by the encoder, a coded layer video sequence (CLVS) for a layer in a bitstream;
 - encoding into the bitstream, by the encoder, a sequence parameter set (SPS) referred to by the CLVS, wherein the SPS is constrained to have a network abstraction layer (NAL) unit header layer identifier (nuh_layer_id) value equal to a nuh_layer_id value of the CLVS when the layer does not use inter-layer prediction; and
 - storing, by the encoder, the bitstream for communication toward a decoder.
9. The method of claim 8, wherein GeneralLayerIdx[nuh_layer_id] is equal to a current layer index.
10. The method of any of claims 8-9, wherein a video parameter set (VPS) independent layer flag (vps_independent_layer_flag) specifies whether a corresponding layer uses inter-layer prediction.
11. The method of any of claims 8-10, wherein the layer does not use inter-layer prediction when vps_independent_layer_flag[GeneralLayerIdx[nuh_layer_id]] is equal to one.
12. The method of any of claims 8-11, wherein the SPS includes a SPS VPS identifier (sps_video_parameter_set_id) that specifies a value of an identifier (ID) for a VPS referred to by the SPS, and wherein the vps_independent_layer_flag[GeneralLayerIdx[nuh_layer_id]] is inferred to be equal to one when sps_video_parameter_set_id is equal to zero.
13. The method of any of claims 8-12, wherein the SPS does not refer to a VPS when the sps_video_parameter_set_id is equal to zero.
14. The method of any of claims 8-13, wherein the CLVS is a sequence of coded pictures with the same nuh_layer_id value.

15. A video coding device comprising:
a processor, a receiver coupled to the processor, a memory coupled to the processor, and a transmitter coupled to the processor, wherein the processor, receiver, memory, and transmitter are configured to perform the method of any of claims 1-14.
16. A non-transitory computer readable medium comprising a computer program product for use by a video coding device, the computer program product comprising computer executable instructions stored on the non-transitory computer readable medium such that when executed by a processor cause the video coding device to perform the method of any of claims 1-14.
17. A decoder comprising:
a receiving means for receiving a bitstream comprising a coded layer video sequence (CLVS) for a layer and a sequence parameter set (SPS) referred to by the CLVS, wherein the SPS has a network abstraction layer (NAL) unit header layer identifier (nuh_layer_id) value equal to a nuh_layer_id value of the CLVS when the layer does not use inter-layer prediction; and
a decoding means for decoding a coded picture from the CLVS based on the SPS to produce a decoded picture.
18. The decoder of claim 17, wherein the decoder is further configured to perform the method of any of claims 1-7.
19. An encoder comprising:
an encoding means for:
encoding a coded layer video sequence (CLVS) for a layer in a bitstream; and
encoding into the bitstream a sequence parameter set (SPS) referred to by the CLVS, wherein the SPS is constrained to have a network abstraction layer (NAL) unit header layer identifier (nuh_layer_id) value equal to a nuh_layer_id value of the CLVS when the layer does not use inter-layer prediction; and
a storing means for storing the bitstream for communication toward a decoder.
20. The encoder of claim 19, wherein the encoder is further configured to perform the method of any of claims 8-14.