CLAIMS

1. A method implemented in a decoder, the method comprising:

receiving a bitstream comprising one or more layers of coded pictures and a video parameter set (VPS), wherein an each layer is an output layer set (OLS) flag (each_layer_is_an_ols_flag) is included in the VPS when all layers specified by the VPS are independently coded without inter-layer prediction, wherein the each_layer_is_an_ols_flag equal to one specifies that each OLS contains only one layer and the only one layer is an output layer, and the each_layer_is_an_ols_flag equal to zero specifies that at least one OLS contains more than one layer, wherein the OLS represents that one or more layers in the set of layers are specified as output layers, and wherein an output layer is a layer that is designated for output;

decoding a coded picture from the only one output layer when the each_layer_is_an_ols_flag in the VPS equal to one or a coded picture from more than one output layers when the each_layer_is_an_ols_flag in the VPS equal to zero to produce a decoded picture; and

forwarding the decoded picture for display as part of a decoded video sequence.

2. The method of claim 1, wherein the VPS includes a vps_all_independent_layers_flag set to one to specify that all layers specified by the VPS are independently coded without inter-layer prediction.

3. The method of claim 2, wherein the VPS includes a VPS maximum layers minus one (vps_max_layers_minus1) syntax element plus 1 specifies the maximum allowed number of layers in each CVS referring to the VPS, and wherein the vps_all_independent_layers_flag is signaled when vps_max_layers_minus1 is greater than zero.

4. A method implemented in an encoder, the method comprising:

encoding a bitstream comprising one or more layers of coded pictures;

encoding into the bitstream a video parameter set (VPS), the VPS including an each layer is an output layer set (OLS) flag (each_layer_is_an_ols_flag) when all layers specified by the VPS are independently coded without inter-layer prediction, wherein the each_layer_is_an_ols_flag equal to one specifies that each OLS contains only one layer and the only one layer is an output layer, and the each_layer_is_an_ols_flag equal to zero specifies that at least one OLS contains more than one layer, wherein the OLS represents that one or more layers in the set of layers are specified as output layers, and wherein an output layer is a layer that is designated for output; and

storing the bitstream for communication toward a decoder.

5. The method of claim 4, wherein the VPS includes a vps_all_independent_layers_flag set to one to specify that all layers specified by the VPS are independently coded without inter-layer prediction.

6. The method of claim 5, wherein the VPS includes a VPS maximum layers minus one (vps_max_layers_minus1) syntax element plus 1 specifies the maximum allowed number of layers in each CVS referring to the VPS, and wherein the vps_all_independent_layers_flag is signaled when vps_max_layers_minus1 is greater than zero.

7. 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 1-6.

8. 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 1-6.

9. A decoder comprising:

a receiving means for receiving a bitstream comprising one or more layers of coded pictures and a video parameter set (VPS), wherein an each layer is an output layer set (OLS) flag (each_layer_is_an_ols_flag) is included in the VPS when all layers specified by the VPS are independently coded without inter-layer prediction, the each_layer_is_an_ols_flag equal to one specifies that each OLS contains only one layer and the only one layer is an output layer, and the each_layer_is_an_ols_flag equal to zero specifies that at least one OLS contains more than one layer, wherein the OLS represents that one or more layers in the set of layers are specified as output layers, and wherein an output layer is a layer that is designated for output;

a decoding means for decoding a coded picture from the only one output layer when the each_layer_is_an_ols_flag equal to one or a coded picture from more than one output layers when the each_layer_is_an_ols_flag in the VPS equal to zero in the VPS to produce a decoded picture; and

a forwarding means for forwarding the decoded picture for display as part of a decoded video sequence.

10. The decoder of claim 9, wherein the decoder is further configured to perform the method of any of claims 1-3.

11. An encoder comprising:

an encoding means for:

encoding a bitstream comprising one or more layers of coded pictures; and

encoding into the bitstream a video parameter set (VPS) including an each layer is an output layer set (OLS) flag (each_layer_is_an_ols_flag) when all layers specified by the VPS are independently coded without inter-layer prediction, the each_layer_is_an_ols_flag equal to one specifies that each OLS contains only one layer and the only one layer is an output layer, and the each_layer_is_an_ols_flag equal to zero specifies that at least one OLS contains more than one layer, wherein the OLS represents that one or more layers in the set of layers are specified as output layers, and wherein an output layer is a layer that is designated for output; and

a storing means for storing the bitstream for communication toward a decoder.

12. The encoder of claim 11, wherein the encoder is further configured to perform the method of any of claims 4-6.

13. An encoded bitstream, wherein the encoded bitstream comprising one or more layers of coded pictures and a video parameter set (VPS), wherein an each layer is an output layer set (OLS) flag (each_layer_is_an_ols_flag) is included in the VPS when all layers specified by the VPS are independently coded without inter-layer prediction, wherein the each_layer_is_an_ols_flag equal to one specifies that each OLS contains only one layer and the only one layer is an output layer, and the each_layer_is_an_ols_flag equal to zero specifies that at least one OLS contains more than one layer, wherein the OLS represents that one or more layers in the set of layers are specified as output layers, and wherein an output layer is a layer that is designated for output.