CLAIMS

1. A method of decoding, the method comprising:

receiving a bitstream comprising compressed video/image data, wherein the bitstream has multiple layers;

parsing or deriving, from the bitstream, an output layer set mode indicator in a video parameter set (VPS);

identifying output layer set signaling based on the output layer set mode indicator;

identifying one or more picture output layers based on the identified output layer set signaling; and

decoding the identified one or more picture output layers,

the decoding comprising: setting a picture output flag equal to 0 based on a VPS identifier being greater than 0, which indicates that more than one layer is present in the bitstream, and based on a syntax element indicating that a current layer is not an output layer.

2. The method of claim 1, wherein the identifying of the output layer set signaling based on the output layer set mode indicator includes:

in a case that the output layer set mode indicator in the VPS is a first value, identifying a highest layer in the bitstream as the one or more picture output layers;

in a case that the output layer set mode indicator in the VPS is a second value, identifying all layers in the bitstream as the one or more picture output layers; and

in a case that the output layer set mode indicator in the VPS is a third value, identifying the one or more picture output layers based on explicit signaling in the VPS, wherein

the first value is different from the second value and different from the third value, and

the second value is different from the third value.

3. The method of claim 2, wherein the first value is 0, the second value is 1, and the third value is 2.

4. The method of claim 2, wherein the identifying the one or more picture output layers by the explicit signaling in the VPS includes: (i) parsing or deriving, from the VPS, an output layer flag, and (ii) setting layers that have the output layer flag equal to 1 be the one or more picture output layers.

5. The method of claim 1, wherein the identifying of the output layer set signaling based on the output lay set mode indicator includes:

in a case that the output lay set mode indicator in the VPS is a predetermined value, the output layer set signaling includes identifying the one or more picture output layers based on explicit signaling in the VPS.

6. The method of claim 5, wherein the identifying the one or more picture output layers by the explicit signaling in the VPS includes: (i) parsing or deriving, from the VPS, an output layer flag, and (ii) setting layers that have the output layer flag equal to 1 be the one or more picture output layers, wherein a number of the multiple layers is greater than 2.

7. The method of claim 5, wherein the output layer set signaling includes identifying the one or more picture output layers based on the explicit signaling in the VPS when the output layer set mode indicator equals 2, and a number of layers of the multiple layers is greater than 2.

8. The method of claim 1, wherein

the output layer set signaling includes identifying the highest layer in the bitstream or all layers in the bitstream as the one or more picture output layers by inferring the one or more picture output layers, when the output layer set mode indicator is less than 2, and the number of multiple layers is 2.

9. The method of claim 8, wherein a number output layer sets minus1 indicator in the VPS indicates a number of the output layer set.

10. The method of claim 9, wherein a VPS maximum layer minus1 indicator in the VPS indicates a number of layers in the bitstream.

11. The method of claim 2, wherein if all of the multiple layers in the bitstream are independent layers that do not have parsing and decoding dependency on another layer, where a VPS all independent layers flag of the VPS equals 1, the output layer set mode indicator is not signaled, and a value of the output layer set mode indicator is inferred to be the second value.

12. The method of claim 1, further comprising: controlling a display to display the decoded one or more picture output layers.

13. A non-transitory computer-readable storage medium storing instructions that, when executed, cause a system or device comprising one or more processors to:

receive a bitstream comprising compressed video/image data, wherein the bitstream has multiple layers;

parse or derive, from the bitstream, an output layer set mode indicator in a video parameter set (VPS);

identify output layer set signaling based on the output layer set mode indicator;

identify one or more picture output layers based on the identified output layer set signaling; and

decode the identified one or more picture output layers,

the decoding including:

setting a picture output flag equal to 0 based on a VPS identifier being greater than 0, which indicates that more than one layer is present in the bitstream, and based on a syntax element indicating that a current layer is not an output layer.

14. The non-transitory computer-readable storage medium of claim 12, wherein the instructions are further configured to cause the system or device comprising the one or more processors to: control a display to display the decoded one or more picture output layers.

15. An apparatus comprising:

at least one memory configured to store computer program code; and

at least one processor configured to access the at least one memory and operate according to the computer program code, the computer program code comprising:

receiving code configured to cause the at least one processor to receive a bitstream comprising compressed video/image data, wherein the bitstream has multiple layers;

parsing or deriving code configured to cause the at least one processor to parse or derive, from the bitstream, an output layer set mode indicator in a video parameter set (VPS);

output layer signaling identifying code configured to cause the at least one processor to identify output layer set signaling based on the output layer set mode indicator;

picture output layer identifying code configured to cause the at least one processor to identify one or more picture output layers based on the identified output layer set signaling; and

decoding code configured to cause the at least one processor to: decode the identified one or more picture output layers,

wherein the decoding code is configured to cause the at least one processor to set a picture output flag equal to 0 based on a VPS identifier being greater than 0, which indicates that more than one layer is present in the bitstream, and based on a syntax element indicating that a current layer is not an output layer.

16. The apparatus of claim 15, wherein the computer program code further comprises:

display control code configured to cause the at least one processor to control a display to display the one or more picture output layers.

17. The apparatus of claim 15, wherein the decoding code is further configured to cause the at least one processor to set the picture output flag equal to a picture output flag signaled in a picture header, based on the VPS identifier not being greater than 0 or based on the syntax element indicating that the current layer is the output layer.