

CLAIMS

1. A video coding method comprising:
 - receiving a video signal comprising at least a base layer (BL), an enhancement layer (EL), and an indication of a scalability type that relates the EL to the BL;
 - determining, based on the scalability type, a picture level inter-layer process for processing a BL picture into an inter-layer reference (ILR) picture;
 - performing the determined picture level inter-layer process on the BL picture to generate the ILR picture; and
 - in response to a determination that the ILR picture is included in a reference picture set associated with a current EL picture, predicting the current EL picture using the ILR picture.
2. The method of claim 1 further comprising storing the processed ILR picture in an EL decoded picture buffer (DPB).
3. The method of claim 1, the method further comprising:
 - receiving packetized inter-layer prediction (ILP) information, wherein the determined picture level inter-layer process is performed based on the packetized ILP information.
4. The method of claim 3, wherein the packetized ILP information comprises at least one of upsampling filter information, denoising information, one or more of disparity compensation parameters, or one or more of inverse tone mapping parameters.
5. The method of claim 4, wherein the packetized ILP information is received via a separate network abstraction layer (NAL) unit from a NAL carrying BL information or EL information.
6. A video coding system comprising:
 - a processor programmed to:
 - receive a video signal comprising at least a base layer (BL), an enhancement layer (EL), and an indication of a scalability type that relates the EL to the BL;
 - determine, based on the scalability type, a picture level inter-layer process for processing a BL picture into an inter-layer reference (ILR) picture;
 - perform the determined picture level inter-layer process on the BL picture to generate the ILR picture; and
 - in response to a determination that the ILR picture is included in a reference picture set associated with a current EL picture, predict the current EL picture using the ILR picture.

7. The system of claim 6 wherein the processor is further programmed to store the ILR picture in an EL decoded picture buffer (DPB).
8. The system of claim 6 or the method of claim 1, wherein the current EL picture corresponds to a time instance, and the ILR picture corresponds to a different time instance from the time instance that the current EL picture corresponds to.
9. The system of claim 6 or the method of claim 1, wherein the reference picture set further comprises a reference EL picture, and predicting the current EL picture comprises using the ILR picture and the reference EL picture.
10. The system of claim 6 or the method of claim 1, wherein, in response to a determination that the scalability type comprises at least one of spatial scalability or chroma format scalability, the picture level inter-layer process is determined to comprise upsampling.
11. The system of claim 6 or the method of claim 1, wherein, in response to a determination that the scalability type comprises at least one of quality scalability, spatial scalability, view scalability, standard scalability, or aspect ratio scalability, the picture level inter-layer process is determined to comprise denoising.
12. The system of claim 6 or the method of claim 1, wherein, in response to a determination that the scalability type comprises view scalability, the picture level inter-layer process is determined to comprise disparity compensation.
13. The system of claim 6 or the method of claim 1, wherein, in response to a determination that the scalability type comprises bit-depth scalability, the picture level inter-layer process is determined to comprise inverse tone mapping.
14. The system of claim 6, the processor is further configured to:

receive packetized inter-layer prediction (ILP) information, wherein the determined picture level inter-layer process is performed based on the packetized ILP information.
15. The system of claim 14, wherein the packetized ILP information comprises at least one of upsampling filter information, denoising information, one or more of disparity compensation parameters, or one or more of inverse tone mapping parameters.
16. The system of claim 14, wherein the processor is further programmed to receive the packetized ILP information via a separate network abstraction layer (NAL) unit from a NAL carrying BL information or EL information.