CLAIMS:

1. A method for video encoding performed by at least one processor, the method comprising:

receiving a source video sequence from a video source; and

encoding the source video sequence to generate video data, wherein the video data comprises a high level syntax,

wherein a value of a syntax element of the high level syntax is used for indicating a picture order count (POC) value of an access unit (AU) of the video data, and is used for setting at least one of a plurality of pictures, slices, and tiles of the video data to the AU;

wherein the high level syntax comprises a flag indicating whether at least one of the pictures is divided into a plurality of sub-regions; and

wherein the video data further comprises a sequence parameter set (SPS) carrying a coded picture size, and when the flag in the high level syntax indicates that the at least one of the pictures is not divided into the plurality of sub-regions, the coded picture size is used for setting an input picture size of the at least one of the pictures.

2. The method for video encoding according to claim 1, wherein the value of the syntax element indicates a number of the plurality of pictures, slices, and tiles of the video data to be set to the AU.

3. The method for video encoding according to claim 1, wherein the high level syntax is contained in a video parameter set (VPS) of the video data and identifying a number of at least one type of enhancement layers of the video data.

4. The method for video encoding according to claim 1, wherein the high level syntax further comprises a flag indicating whether the POC value increases uniformly per AU.

5. The method for video encoding according to claim 4, wherein

when the flag indicates that the POC value does not increase uniformly per AU, the POC value and a picture level value of the video data are used for calculating an access unit count (AUC).

6. The method for video encoding according to claim 4, wherein

when the flag indicates that the POC value does increase uniformly per AU, the POC value and a sequence level value of the video data are used for calculating an access unit count (AUC).

7. The method for video encoding according to claim 1, wherein

the SPS comprises syntax elements signaling offsets corresponding to a layer of the video data.

8. The method for video encoding according to claim 7, wherein the offsets comprise an offset in a width direction and an offset in a height direction.

9. An apparatus for video encoding, the apparatus comprising:

at least one memory configured to store computer program code;

at least one processor configured to access the computer program code and operate as instructed by the computer program code, the computer program code including:

receiving code configured to cause the at least one processor to receive a source video sequence from a video source;

generating code configured to cause the at least one processor to generate video data by encoding the source video sequence, wherein the video data comprises a high level syntax;

wherein a value of a syntax element of the high level syntax is used for indicating a picture order count (POC) value of an access unit (AU) of the video data; and is used for setting at least one of a plurality of pictures, slices, and tiles of the video data to the AU;

wherein the high level syntax comprises a flag indicating whether at least one of the pictures is divided into a plurality of sub-regions; and

wherein the video data further comprises a sequence parameter set (SPS) carrying a coded picture size, and when the flag in the high level syntax indicates that the at least one of the pictures is not divided into the plurality of sub-regions, the coded picture size is used for setting an input picture size of the at least one of the pictures.

10. The apparatus for video encoding according to claim 9, wherein the value of the syntax element indicates a number of the plurality of pictures, slices, and tiles of the video data to be set to the AU.

11. The apparatus for video encoding according to claim 9, wherein the high level syntax is contained in a video parameter set (VPS) of the video data and identifying a number of at least one type of enhancement layers of the video data.

12. The apparatus for video encoding according to claim 9, wherein the high level syntax further comprises a flag indicating whether the POC value increases uniformly per AU.

13. The apparatus for video encoding according to claim 12, wherein

when the flag indicates that the POC value does not increase uniformly per AU, the POC value and a picture level value of the video data are used for calculating an access unit count (AUC).

14. The apparatus for video encoding according to claim 12, wherein

when the flag indicates that the POC value does increase uniformly per AU, the POC value and a sequence level value of the video data are used for calculating an access unit count (AUC).

15. The apparatus for video encoding according to claim 9, wherein the SPS comprises syntax elements signaling offsets corresponding to a layer of the video data.

16. The apparatus for video encoding according to claim 15, wherein the offsets comprise an offset in a width direction and an offset in a height direction.

17. A non-transitory computer readable recording medium storing a bitstream, wherein the bitstream is generated by a method for video encoding of any one of claims 1 to 8.