What is Claimed is:

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

receiving a coded video stream that includes an access unit, including a picture;

signaling a first flag, in an access unit delimiter of the coded video stream, that indicates whether the access unit includes either or neither one from among an intra random access point (IRAP) picture and a gradual decoding refresh (GDR) picture;

signaling a second flag, in a picture header of the coded video stream, that indicates whether the picture is the IRAP picture; and

decoding the picture, as a current picture, based on the signaling of the first flag and the second flag,

wherein a value of the first flag and a value of the second flag are aligned~~.~~,

wherein the decoding comprises:

constructing a reference picture list;

generating an unavailable reference picture in the reference picture list; and

checking bitstream conformance, for references pictures in the reference picture list, that the following constraints apply:

a number of entries that are indicated to be in the reference picture list is not less than a number of active entries that are indicated to be in the reference picture list,

each picture referred to by an active entry in the reference picture list is present in a decoded picture buffer (DPB) and has a temporal identifier value less than or equal to a temporal identifier value of the current picture, and

each picture referred to by an entry in the reference picture list is not the current picture and is indicated by a picture header flag to potentially be a reference picture.

2. The method of claim 1, further comprising:

signaling a third flag, in the picture header of the coded video stream, that indicates whether the picture is the GDR picture,

wherein the value of the first flag and a value of the third flag are aligned.

3. The method of claim 2, wherein the third flag is signaled based on the second flag indicating that the picture is not the IRAP picture.

4. The method of claim 1, wherein

the first flag has a value that indicates that the picture is either one from among the IRAP picture and the GDR picture,

the second flag has a value that indicates that the picture is the IRAP picture, and

the method further comprises signaling a third flag, in a slice header of a slice of the picture of the coded video stream, that indicates whether any pictures prior to the IRAP picture are outputted.

5. The method of claim 4, further comprising:

determining a network abstraction layer (NAL) unit type of the slice,

wherein the third flag is signalled based on the NAL unit type that is determined.

6. The method of claim 5, wherein the third flag is signalled based on the NAL unit type being determined to be equal to IDR_W_RADL, IDR_N_LP, or CRA_NUT.

7. The method of claim 5, further comprising:

signaling a fourth flag, in the picture header of the coded video stream, that indicates whether the picture is the GDR picture,

wherein the value of the first flag and a value of the fourth flag are aligned.

8. The method of claim 7, wherein the third flag is signaled based on the second flag indicating that the picture is not the IRAP picture.

~~9. The method of claim 1, wherein the decoding comprises:~~

~~constructing a reference picture list;~~

~~generating an unavailable reference picture in the reference picture list; and~~

~~checking bitstream conformance, for references pictures in the reference picture list, that the following constraints apply:~~

~~a number of entries that are indicated to be in the reference picture list is not less than a number of active entries that are indicated to be in the reference picture list,~~

~~each picture referred to by an active entry in the reference picture list is present in a decoded picture buffer (DPB) and has a temporal identifier value less than or equal to a temporal identifier value of the current picture, and~~

~~each picture referred to by an entry in the reference picture list is not the current picture and is indicated by a picture header flag to potentially be a reference picture.~~

~~10~~9. The method of claim ~~9~~1, wherein the checking bistream conformance is performed based on determining the current picture is an independent decoder refresh (IDR) picture, a clean random access (CRA) picture, or ~~a~~ the gradual decoding refresh (GDR) picture.

1~~0~~1. A system comprising:

at least one processor that is configured to receive a coded video stream that includes an access unit, including a picture

memory storing computer code, the computer code comprising:

first signaling code configured to cause the at least one processor to signal a first flag, in an access unit delimiter of the coded video stream, that indicates whether the access unit includes either or neither one from among an intra random access point (IRAP) picture and a gradual decoding refresh (GDR) picture;

second signaling code configured to cause the at least one processor to signal a second flag, in a picture header of the coded video stream, that indicates whether the picture is the IRAP picture; and

decoding code configured to cause the at least one processor to decode the picture, as a current picture, based on the signaling of the first flag and the second flag,

wherein a value of the first flag and a value of the second flag are aligned~~.~~,

wherein the decoding code comprises:

constructing code configured to cause the at least one processor to construct a reference picture list;

generating code configured to cause the at least one processor to generate an unavailable reference picture in the reference picture list; and

checking code configured to cause the at least one processor to check bitstream conformance, for references pictures in the reference picture list, that the following constraints apply:

a number of entries that are indicated to be in the reference picture list is not less than a number of active entries that are indicated to be in the reference picture list,

each picture referred to by an active entry in the reference picture list is present in a decoded picture buffer (DPB) and has a temporal identifier value less than or equal to a temporal identifier value of the current picture, and

each picture referred to by an entry in the reference picture list is not the current picture and is indicated by a picture header flag to potentially be a reference picture.

~~12~~11. The system of claim ~~11~~10, the computer code further comprises:

third signaling code configured to cause the at least one processor to signal a third flag, in the picture header of the coded video stream, that indicates whether the picture is the GDR picture,

wherein the value of the first flag and a value of the third flag are aligned.

~~13~~12. The system of claim ~~12~~11, wherein the third flag is signaled based on the second flag indicating that the picture is not the IRAP picture.

~~14~~13. The system of claim ~~11~~10, wherein

the first flag has a value that indicates that the picture is either one from among the IRAP picture and the GDR picture,

the second flag has a value that indicates that the picture is the IRAP picture, and

the compute code further comprises third signaling code configured to cause the at least one processor to signal a third flag, in a slice header of a slice of the picture of the coded video stream, that indicates whether any pictures prior to the IRAP picture are outputted.

~~15~~14. The system of claim ~~14~~13, the computer code further comprises:

determining code configured to cause the at least one processor to determine a network abstraction layer (NAL) unit type of the slice,

wherein the third flag is signalled based on the NAL unit type that is determined.

~~16~~15. The system of claim ~~15~~14, wherein the third flag is signalled based on the NAL unit type being determined to be equal to IDR_W_RADL, IDR_N_LP, or CRA_NUT.

~~17~~16. The system of claim ~~15~~14, the computer code further comprises:

fourth signaling codec configured to cause the at least one processor to signal a fourth flag, in the picture header of the coded video stream, that indicates whether the picture is the GDR picture,

wherein the value of the first flag and a value of the fourth flag are aligned.

~~18~~17. The system of claim ~~17~~16, wherein the third flag is signaled based on the second flag indicating that the picture is not the IRAP picture.

~~19. The system of claim 11, wherein the decoding code comprises:~~

~~constructing code configured to cause the at least one processor to construct a reference picture list;~~

~~generating code configured to cause the at least one processor to generate an unavailable reference picture in the reference picture list; and~~

~~checking code configured to cause the at least one processor to check bitstream conformance, for references pictures in the reference picture list, that the following constraints apply:~~

~~a number of entries that are indicated to be in the reference picture list is not less than a number of active entries that are indicated to be in the reference picture list,~~

~~each picture referred to by an active entry in the reference picture list is present in a decoded picture buffer (DPB) and has a temporal identifier value less than or equal to a temporal identifier value of the current picture, and~~

~~each picture referred to by an entry in the reference picture list is not the current picture and is indicated by a picture header flag to potentially be a reference picture.~~

~~20~~18. A non-transitory computer-readable medium storing computer instructions that, when executed by at least one processor that receives a coded video stream that includes an access unit, including a picture, cause the at least one processor to:

signal a first flag, in an access unit delimiter of the coded video stream, that indicates whether the access unit includes either or neither one from among an intra random access point (IRAP) picture and a gradual decoding refresh (GDR) picture;

signal a second flag, in a picture header of the coded video stream, that indicates whether the picture is the IRAP picture; and

decode the picture, as a current picture, based on the signaling of the first flag and the second flag,

wherein a value of the first flag and a value of the second flag are aligned,

wherein the decoding comprises:

constructing a reference picture list;

generating an unavailable reference picture in the reference picture list; and

checking bitstream conformance, for references pictures in the reference picture list, that the following constraints apply:

a number of entries that are indicated to be in the reference picture list is not less than a number of active entries that are indicated to be in the reference picture list,

each picture referred to by an active entry in the reference picture list is present in a decoded picture buffer (DPB) and has a temporal identifier value less than or equal to a temporal identifier value of the current picture, and

each picture referred to by an entry in the reference picture list is not the current picture and is indicated by a picture header flag to potentially be a reference picture.~~,~~