

WHAT IS CLAIMED IS:

1. A decoder, the decoder comprising circuitry configured to:
receive a bit stream;
5 determine, using the bit stream and for a current frame, whether the current frame is
available to be used as a reference frame;
set, in response to determining that the current frame is available to be used as a reference
frame, a variable characterizing that an adaptive resolution management mode is
disallowed; and
10 reconstruct pixel data of the current frame, wherein the adaptive resolution management
mode is disallowed.
2. The decoder of claim 1, wherein the determining whether the current frame is available to
be used as a reference frame includes determining whether a type of the current frame is
type I
- 15 3. The decoder of claim 1, wherein the determining whether the current frame is available to
be used as a reference frame includes determining whether a type of the current frame is
type P.
4. The decoder of claim 1, wherein a type of the current frame is signaled in the bit stream.
5. The decoder of claim 1, wherein the current frame is a slice.
- 20 6. The decoder of claim 1, wherein parameters associated with the adaptive resolution
management mode are not present in a picture header of the current frame.
7. The decoder of claim 1, further configured to decode, from the bitstream, a current block.
8. The decoder of claim 1, wherein the current block includes a coding tree unit.
9. The decoder of claim 1, wherein the current block includes a prediction unit.
- 25 10. The decoder of claim 1, further comprising:
an entropy decoder processor configured to receive the bit stream and decode the bit
stream into quantized coefficients;
an inverse quantization and inverse transformation processor configured to process the
quantized coefficients including performing an inverse discrete cosine;
30 a deblocking filter;
a frame buffer; and

- an intra prediction processor.
11. A method comprising:
- receiving a bit stream;
- determining, using the bit stream and for a current frame, whether the current frame is
- 5 available to be used as a reference frame;
- setting, in response to determining that the current frame is available to be used as a
- reference frame, a variable characterizing that an adaptive resolution management
- mode is disallowed; and
- reconstructing pixel data of the current frame, wherein the adaptive resolution
- 10 management mode is disallowed.
12. The method of claim 11, wherein the determining whether the current frame is available
- to be used as a reference frame includes determining whether a type of the current frame
- is type I
13. The method of claim 11, wherein the determining whether the current frame is available
- 15 to be used as a reference frame includes determining whether a type of the current frame
- is type P.
14. The method of claim 13, wherein a type of the current frame is signaled in the bit stream.
15. The method of claim 11, wherein the current frame is a slice.
16. The method of claim 11, wherein parameters associated with the adaptive resolution
- 20 management mode are not present in a picture header of the current frame.
17. The method of claim 11, further comprising decoding, from the bitstream, a current
- block.
18. The method of claim 11, wherein the current block includes a coding tree unit.
19. The method of claim 11, wherein the current block includes a prediction unit
- 25 20. The method of claim 11, wherein at least one of the receiving, the determining, the
- setting, and the reconstructing is performed by a decoder, the decoder comprising:
- an entropy decoder processor configured to receive the bit stream and decode the bit
- stream into quantized coefficients;
- an inverse quantization and inverse transformation processor configured to process the
- 30 quantized coefficients including performing an inverse discrete cosine;
- a deblocking filter;

a frame buffer; and
an intra prediction processor.