

JVT-T083

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GE imagination at work

High Level Syntax Changes

- > Interlayer dependency in NAL Header
- > Deblocking filter parameters for inter-layer prediction
- > Order of syntax element in slice header
- > Modification of key_pic_flag

Inter-layer dependency in NAL header

- > Add base_id_present_flag in NAL header
- > Detection of “independent” NAL units
 - Without decoding the bitstream
 - At a fixed position in the stream
- > Allow a clear difference between “base slices” and “enhancement slices”



Inter-layer deblocking filters

- > Two type of deblocking filters
 - Inter-layer, i.e. SVC specific deblocking
 - “temporal”, i.e. conventional AVC deblocking
- > No reason to share the same parameters
- > AVC Base layer problem
 - Inter-layer deblocking parameters should be sent with the enhancement layers

Order of syntax element in the slice header

- > Change the order so that it is very close to AVC order
 - For non-PR slices, it is the same
- > Same parsing for AVC/SVC to get info such as
 - pic_paramter_set, frame_num, idr_pic_id ...



Split of key_pic_flag

key_pic_flag is used for two different process:

- > Control the temporal prediction
 - Using the “base representation”
 - Eventually with AR-FGS
- > Trigger the storage of the “base representation”
 - Only when the first FGS layer is received

Split of key_pic_flag

Use two different syntax element

> use_base_prediction_flag

- Control the temporal prediction

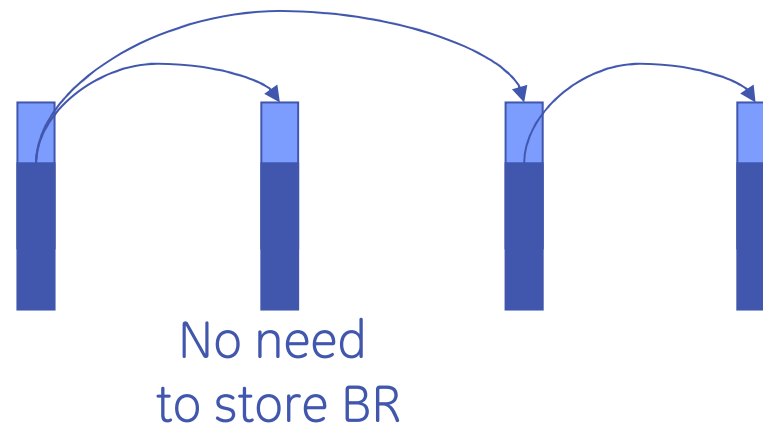
> store_base_rep_flag

- Control the storage of the “base representation”
- When present: the base representation is always stored
 - Content of the DPB is independent of the FGS truncation



Why the split

> More flexible prediction patterns



> DPB behaviour independent of FGS presence

More on key_pic_flag

- > Ideally should be “protected” in the SPS using a flag like:
 - base_representation_present_flag

