



AHG12: SLICE HEADER EXTENSION

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BACKGROUND

- › In the CD of HEVC, all parameter sets have an extension field at the end of their syntax table. They serve as hooks for future extensions of the standard.
- › The presence of the extension fields are controlled by flags.
- › It is specified that a decoder shall ignore the extension data
“Its value does not affect decoder conformance to profiles specified in this Recommendation”
- › It is further specified that an encoder has to set the flag to 0:
“shall be equal to 0 in bitstreams conforming to this Recommendation”

Example from sequence parameter set

seq_parameter_set_rbsp() {	Descriptor
...	
sps_extension_flag	u(1)
if(sps_extension_flag)	
while(more_rbsp_data())	
sps_extension_data_flag	u(1)
rbp_trailing_bits()	
}	

SLICE HEADER EXTENSION

- › The slice header of HEVC does not contain an extension field
- › Such a field may be useful for future extensions
- › It is not possible to add an extension field similar to the parameter sets since the start of slice_data() would not be known.

slice_layer_rbsp() {	Descriptor
slice_header()	
slice_data()	
rbsp_slice_trailing_bits()	
}	

PROPOSED TEXT (1/2)

seq_parameter_set_rbsp() {	Descriptor
...	
slice_header_extension_present_flag	u(1)
...	

slice_header_extension_present_flag equal to 0 specifies that no slice header extension syntax elements are present in the slice headers of the coded video sequence. **slice_header_extension_present_flag** shall be equal to 0 in bitstreams conforming to this Recommendation | International Standard. The value of 1 for **slice_header_extension_present_flag** is reserved for future use by ITU-T | ISO/IEC.

PROPOSED TEXT (2/2)

slice_header() {	Descriptor
...	
if(slice_header_extension_present_flag) {	
slice_header_extension_length	ue(v)
for(i = 0; i < slice_header_extension_length; i++)	
slice_header_extension_data_flag	u(1)
}	
}	

slice_header_extension_length specifies the length of the slice header extension data in bits, not including the bits used for signalling slice_header_extension_length itself. When present, the slice_header_extension_length also specifies the start position of the slice_data() as being equal to the bit position of the first bit after the slice_header_extension_length syntax element + slice_header_extension_length number of bits.

slice_header_extension_data_flag may have any value. Decoders shall ignore the value of slice_header_extension_data_flag. Its value does not affect decoder conformance to profiles specified in this Recommendation | International Standard.



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