

7.3 Syntax in tabular form

7.3.1 NAL unit syntax

nal_unit(NumBytesInNALunit) {	C	Descriptor
forbidden_zero_bit	All	f(1)
nal_ref_idc	All	u(2)
nal_unit_type	All	u(5)
NumBytesInRBSP = 0		
nalUnitHeaderBytes = 1		
if(nal_unit_type == 14 nal_unit_type == 20 nal_unit_type == 21) {		
if(nal_unit_type != 21)		
svc_extension_flag	All	u(1)
else		
avc_3d_extension_flag	All	u(1)
if(svc_extension_flag) {		
nal_unit_header_svc_extension() /* specified in Annex G */	All	
nalUnitHeaderBytes += 3		
} else if(avc_3d_extension_flag) {		
nal_unit_header_3dsvc_extension() /* specified in Annex J */		
nalUnitHeaderBytes += 2		
} else {		
nal_unit_header_mvc_extension() /* specified in Annex H */	All	
nalUnitHeaderBytes += 3		
}		
}		
for(i = nalUnitHeaderBytes; i < NumBytesInNALunit; i++) {		
if(i + 2 < NumBytesInNALunit && next_bits(24) == 0x000003) {		
rbsp_byte [NumBytesInRBSP++]	All	b(8)
rbsp_byte [NumBytesInRBSP++]	All	b(8)
i += 2		
emulation_prevention_three_byte /* equal to 0x03 */	All	f(8)
} else		
rbsp_byte [NumBytesInRBSP++]	All	b(8)
}		
}		

7.3.2 Raw byte sequence payloads and RBSP trailing bits syntax

7.3.2.1 Sequence parameter set RBSP syntax

seq_parameter_set_rbsp() {	C	Descriptor
seq_parameter_set_data()	0	
rbsp_trailing_bits()	0	
}		

7.3.2.1.1 Sequence parameter set data syntax

seq_parameter_set_data() {	C	Descriptor
profile_idc	0	u(8)
constraint_set0_flag	0	u(1)
constraint_set1_flag	0	u(1)
constraint_set2_flag	0	u(1)
constraint_set3_flag	0	u(1)
constraint_set4_flag	0	u(1)
constraint_set5_flag	0	u(1)
reserved_zero_2bits /* equal to 0 */	0	u(2)
level_idc	0	u(8)
seq_parameter_set_id	0	ue(v)
if(profile_idc == 100 profile_idc == 110 profile_idc == 122 profile_idc == 244 profile_idc == 44 profile_idc == 83 profile_idc == 86 profile_idc == 118 profile_idc == 128 profile_idc == 138 profile_idc == 139 profile_idc == 134 profile_idc == 135) {		
chroma_format_idc	0	ue(v)
if(chroma_format_idc == 3)		
separate_colour_plane_flag	0	u(1)
bit_depth_luma_minus8	0	ue(v)
bit_depth_chroma_minus8	0	ue(v)
qpprime_y_zero_transform_bypass_flag	0	u(1)
seq_scaling_matrix_present_flag	0	u(1)
if(seq_scaling_matrix_present_flag)		
for(i = 0; i < ((chroma_format_idc != 3) ? 8 : 12); i++) {		
seq_scaling_list_present_flag[i]	0	u(1)
if(seq_scaling_list_present_flag[i])		
if(i < 6)		
scaling_list(ScalingList4x4[i], 16, UseDefaultScalingMatrix4x4Flag[i])	0	
else		
scaling_list(ScalingList8x8[i - 6], 64, UseDefaultScalingMatrix8x8Flag[i - 6])	0	
}		
}		

log2_max_frame_num_minus4	0	ue(v)
pic_order_cnt_type	0	ue(v)
if(pic_order_cnt_type == 0)		
log2_max_pic_order_cnt_lsb_minus4	0	ue(v)
else if(pic_order_cnt_type == 1) {		
delta_pic_order_always_zero_flag	0	u(1)
offset_for_non_ref_pic	0	se(v)
offset_for_top_to_bottom_field	0	se(v)
num_ref_frames_in_pic_order_cnt_cycle	0	ue(v)
for(i = 0; i < num_ref_frames_in_pic_order_cnt_cycle; i++)		
offset_for_ref_frame[i]	0	se(v)
}		
max_num_ref_frames	0	ue(v)
gaps_in_frame_num_value_allowed_flag	0	u(1)
pic_width_in_mbs_minus1	0	ue(v)
pic_height_in_map_units_minus1	0	ue(v)
frame_mbs_only_flag	0	u(1)
if(!frame_mbs_only_flag)		
mb_adaptive_frame_field_flag	0	u(1)
direct_8x8_inference_flag	0	u(1)
frame_cropping_flag	0	u(1)
if(frame_cropping_flag) {		
frame_crop_left_offset	0	ue(v)
frame_crop_right_offset	0	ue(v)
frame_crop_top_offset	0	ue(v)
frame_crop_bottom_offset	0	ue(v)
}		
vui_parameters_present_flag	0	u(1)
if(vui_parameters_present_flag)		
vui_parameters()	0	
}		

7.3.2.1.1.1 Scaling list syntax

scaling_list(scalingList, sizeOfScalingList, useDefaultScalingMatrixFlag) {	C	Descriptor
lastScale = 8		
nextScale = 8		
for(j = 0; j < sizeOfScalingList; j++) {		
if(nextScale != 0) {		
delta_scale	0 1	se(v)
nextScale = (lastScale + delta_scale + 256) % 256		
useDefaultScalingMatrixFlag = (j == 0 && nextScale == 0)		
}		
scalingList[j] = (nextScale == 0) ? lastScale : nextScale		
lastScale = scalingList[j]		
}		
}		