ACC Overview [WIP]

Definitions (i.e. what data belongs to which name)

AAC/references/ISOIEC 13818-7 MPEG-2 AAC (official) [page 43, 47**f**]
Sequence:

(1) ADIF Header	[Table 1]
(1.1) program_config_element	[Table 1.1]
(1.2) Sampling frequency	[Table 1.2 / Image 1.2]
(2) Byte Alignment	=> Align with respect to the first bit of the header.
(3) Raw Data Stream (multiple Raw Data Blocks)	[Table 2]

Table 1: ADIF Header | Reference: AAC/references/ISOIEC 13818-7 MPEG-2 AAC (official) [page 24 - 39]

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Expected Name	Length	Type	Expected value
adif_id	32	Bit string, left bit first	0x41444946 | 41 44 49 46
copyright_id_present	1	Bit string, left bit first	01/00
If (copyright_id_present== 1) => **copyright_id**	72	Bit string, left bit first	8-bit copyright_identifier, followed by a 64-bit copyright_number
original_copy	1	Bit string, left bit first	?
home	1	Bit string, left bit first	?
bitstream_type	1	Bit string, left bit first	?
bitrate	23	Unsigned integer, most significant bit first	See Table 1.2 (Image 1.2)
num_program_config_elements	4	Bit string, left bit first	?
if (bitstream_type == '0') => **adif_buffer_fullness**	20	Unsigned integer, most significant bit first	?
program_config_element	?	program_config_element	=> the actual data should be in here (I think)

Table 1.2 / Image 1.2 | Reference: AAC/references/ISOIEC 13818-7 MPEG-2 AAC (official) [page 46]

Table 35 — Sampling frequency dependent on sampling_frequency_index

sampling_frequency_index	sampling frequeny [Hz]
0x0	96000
0x1	88200
0x2	64000
0x3	48000
0x4	44100
0x5	32000
0x6	24000
0x7	22050
0x8	16000
0x9	12000
0xa	11025
0xb	8000
0xc	reserved
0xd	reserved
0xe	reserved
0xf	reserved

Table 2: Raw Data Stream | Reference: AAC/references/ISOIEC 13818-7 MPEG-2 AAC (official) [page 47]

Note: a Raw Data Stream is a selection of Raw Data Blocks,
Definition Raw Data Block: block of raw data that contains audio data for a time period of 1024 samples, related information and other data. There are seven syntactic elements, identified by the data element id_syn_ele. The audio_channel_element()'s in one raw_data_stream() and one raw_data_block() must have one and only one sampling rate. In the raw_data_block(), several instances of the same syntactic element may occur, but must have a different 4 bit element_instance_tag, except for data_stream_element()'s and fill_element()'s. Therefore, in one raw_data_block(), there can be from 0 to at most 16 instances of any syntactic element, except for data_stream_element()'s and fill_element()'s, where this limitation does not apply. If multiple data_stream_element()'s occur which have the same element_instance_tag then they are part of the same data stream. The fill_element() has no element_instance_tag (since the content does not require subsequent reference) and can occur any number of times. The end of a raw_data_block() is indicated with a special id_syn_ele (TERM), which may occur only once in a raw_data_block(). (Table 12).