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**Support ticket #2516: ADQ412 Parsing problems for WFA (Univ Hebrew)**

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Mon, Feb 15, 2016 at 3:51 PM

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Cc: Ulrik Lindblad &lt;ulrik.lindblad@spdevices.com&gt;

In the new firmware revision with the newer SDK there's a helper parsing routine API called WaveformAveragingParseDataStream to help out. The output data format from the WFA module has changed between the two revisions you mention (breakpoint revision is r15679).

The C code for the new firmware parser looks like this, maybe this could help?

```
unsigned int ADQ412::WaveformAveragingParseDataStream(unsigned int
samples_per_record, int* data_stream, int** data_target)

....

....

    for (unsigned int LoopVar = 0; LoopVar < samples_per_record*nofchannels; LoopVar
+= 32)
    {
        if (m_interleavingmode > 0)
        {
            memcpy((void*) &data_target[0][ctr], (void*) &data_stream[LoopVar+0], 8*4);
            memcpy((void*) &data_target[1][ctr], (void*) &data_stream[LoopVar+8], 8*4);
            memcpy((void*) &data_target[0][ctr+8], (void*) &data_stream[LoopVar+16],
8*4);
            memcpy((void*) &data_target[1][ctr+8], (void*) &data_stream[LoopVar+24],
8*4);

            ctr = ctr + 16;
        }
        else
        {
            memcpy((void*) &data_target[0][ctr], (void*) &data_stream[LoopVar+0], 8*4);
            memcpy((void*) &data_target[1][ctr], (void*) &data_stream[LoopVar+16], 8*4);
            memcpy((void*) &data_target[2][ctr], (void*) &data_stream[LoopVar+8], 8*4);
            memcpy((void*) &data_target[3][ctr], (void*) &data_stream[LoopVar+24], 8*4);
```

```
    ctr = ctr + 8;  
  }  
}
```

All channels are interleaved in the output from WFA. In 4-channel mode, this means that

First there are 8 (32-bit = 4 bytes) samples from channel A [Total of 32 bytes]

Then 8 samples from channel C [Total of 32 bytes]

Then 8 samples from channel B [Total of 32 bytes]

Then 8 samples from channel D [Total of 32 bytes]

Thereafter the pattern repeats.

Regards,

Stefan

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