

Front-end Group - Support #18285

Driver needed to piece together MDAT data

11/15/2017 10:45 AM - Richard Neswold

Status:	New	Start date:	11/15/2017
Priority:	High	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
<p>Greg Vogel requested our group provide a driver to piece together two MDAT frames.</p> <p>MDAT frames 54 and 55 each contain half of an IEEE 32-bit float value. We need a driver that will grab both halves and form the complete IEEE float and return it as an ACNET device. The SLD can only grab one MDAT frame at a time, so it looks like we need a front-end with a PMCUUCD in it.</p> <p>This issue has been categorized under the general Front-end group project. When we determine which front-end will host this device, we can re-categorize it.</p>			

History

#1 - 11/17/2017 12:05 PM - Richard Neswold

Here's the MOOC v4.8 code in C++. I don't know how to get the MDAT frames from a PMCUUCD, so if any of you want to add this to one of your PMCUUCD front-ends, that would be great. You need to provide the `get_mdat54()` and `get_mdat55()` functions.

```
static uint16_t get_mdat54();
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static STATUS devReading(short, RS_REQ const* req, void* rpyBuf, void*)
{
    try {
        MOOC::ReadingProxy<float> reading(req, rpyBuf);
        union {
            uint32_t i;
            float f;
        } u;

        u.i = (get_mdat54() << 16) | get_mdat55();
        reading = u.f;
    }
    catch (STATUS const& v) {
        return v;
    }
    catch (std::exception const&) {
        return ERR_DEVICEERROR;
    }
    return NOERR;
}
```

#2 - 06/08/2018 02:37 PM - Richard Neswold

Greg, do you still want this driver written?