

SAMPIC Midas DAQ Status

- Linked Sampic 256 channel C library into an executable MIDAS frontend
 - Does the “loop acquisition” part of the “sampic_test” example every second and stores number of hits in a midas bank
- Just a ”proof of concept”
 - Need more input/documentation for DAQ design

```
[SAMPIC Frontend] Received 1 hits in event
[SAMPIC_Frontend00,INFO] Received 1 hits in event

[SAMPIC Frontend] Received 6 hits in event
[SAMPIC_Frontend00,INFO] Received 6 hits in event

[SAMPIC Frontend] Received 10 hits in event
[SAMPIC_Frontend00,INFO] Received 10 hits in event

[SAMPIC Frontend] Received 1 hits in event
[SAMPIC_Frontend00,INFO] Received 1 hits in event

[SAMPIC Frontend] Received 1 hits in event
[SAMPIC_Frontend00,INFO] Received 1 hits in event

[SAMPIC Frontend] Received 1 hits in event
[SAMPIC_Frontend00,INFO] Received 1 hits in event
```

**Example Midas Frontend debug text output
(polled each second)**

SAMPIC Midas DAQ Questions

- Is there some documentation on the event structure that gets read out by
`SAMPIC256CH_ReadEventBuffer`
`SAMPIC256CH_DecodeEvent`
And are these actually the methods we want to use?
- How much of [T2K's midas frontend code](#) for sampic readout is still usable?
Is it feasible to just copy their [sampic wrapper](#) with minimally changes?
 - I get the impression they had a “special firmware” setup.
- What do these errors mean in the sampic test? [auxiliary slide]

Auxiliary Slides

“Errors” after running sampic_test

- Seem to “multiply” with number of reads
 - Don’t seem to occur until SAMPIC256CH_StopRun is called
 - Doesn’t seem to affect any of the readout (?)

```
[SAMPIC_Frontend00,INFO] Run 4 stopped
Err hpos = -1 tpos -2
here curpos = count =982
Err hpos = -1 tpos -2
here curpos = count =1147
Err hpos = -1 tpos -2
here curpos = count =1312
Err hpos = -1 tpos -2
here curpos = count =1477
Err hpos = -1 tpos -2
here curpos = count =1642
Err hpos = -1 tpos -2
here curpos = count =1807
Err hpos = -1 tpos -2
here curpos = count =1972
```