Weekly Meeting

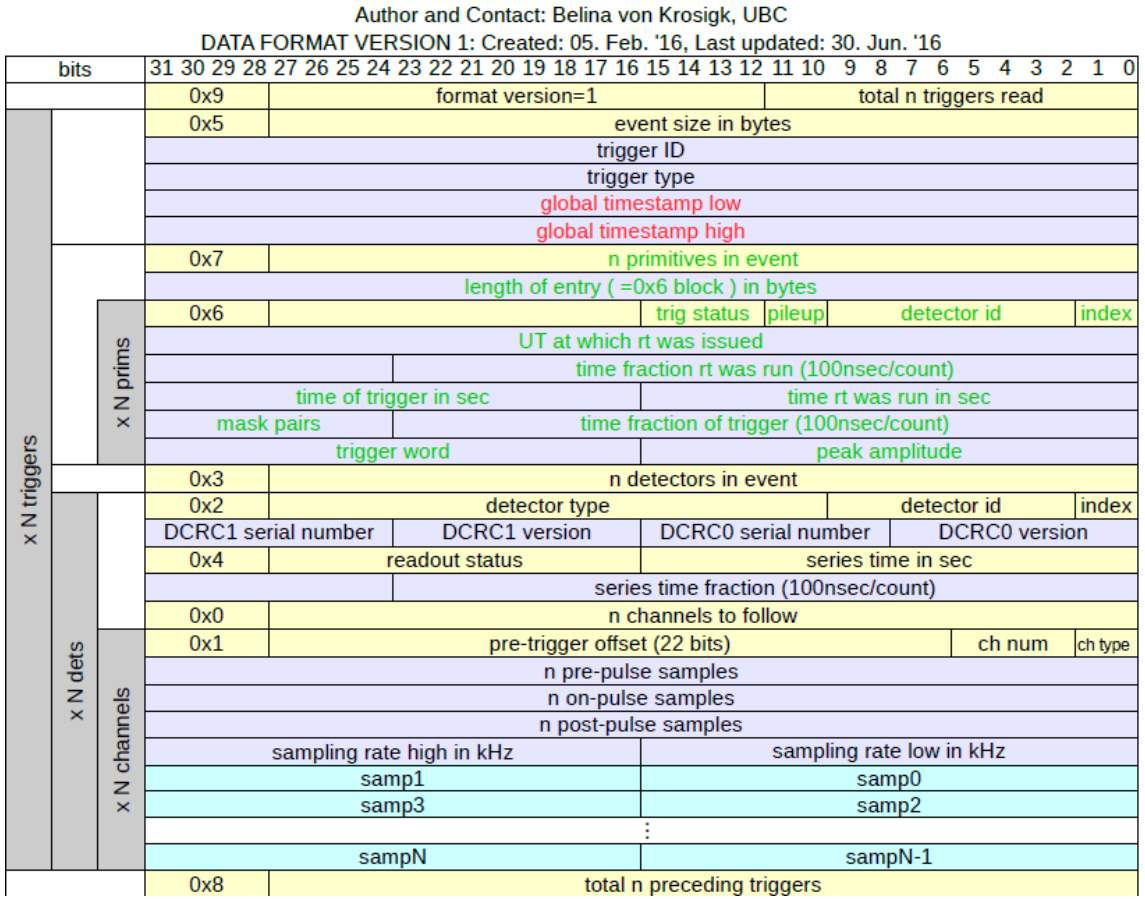
August 2 2017

C++ wrapper for python

- Have gotten the library to work successfully in python – with all of the packing capabilities and error handling in place
- I need to make a few (somewhat) minor changes to the code for it to work in python
  - `std::vector<STATUSCODE> statuscode` → `std::vector<int> statuscode`
    - Python does not like a enum as a vector type. This make no difference
  - unixtime is of type time_t in CDMS DAQ. Python does not accept this variable time
    - Still need to figure out how to handle this variable
  - clamp functions – the formula used in python `((1<<size) - 1)` does not work in python because it extends past 32 bits. I had to rewrite this so it doesn't extend past 32 bits.
  - Previously input to packing functions were `*&emptybuffer` (reference to pointer), in order to iterate the pointer through. Python does not like this, so I will change to *emptybuffer
    - I asked Ben, and he said he was fine with making this change.
    - Pointer can still be iterated by user with `get_eventsize(…)`

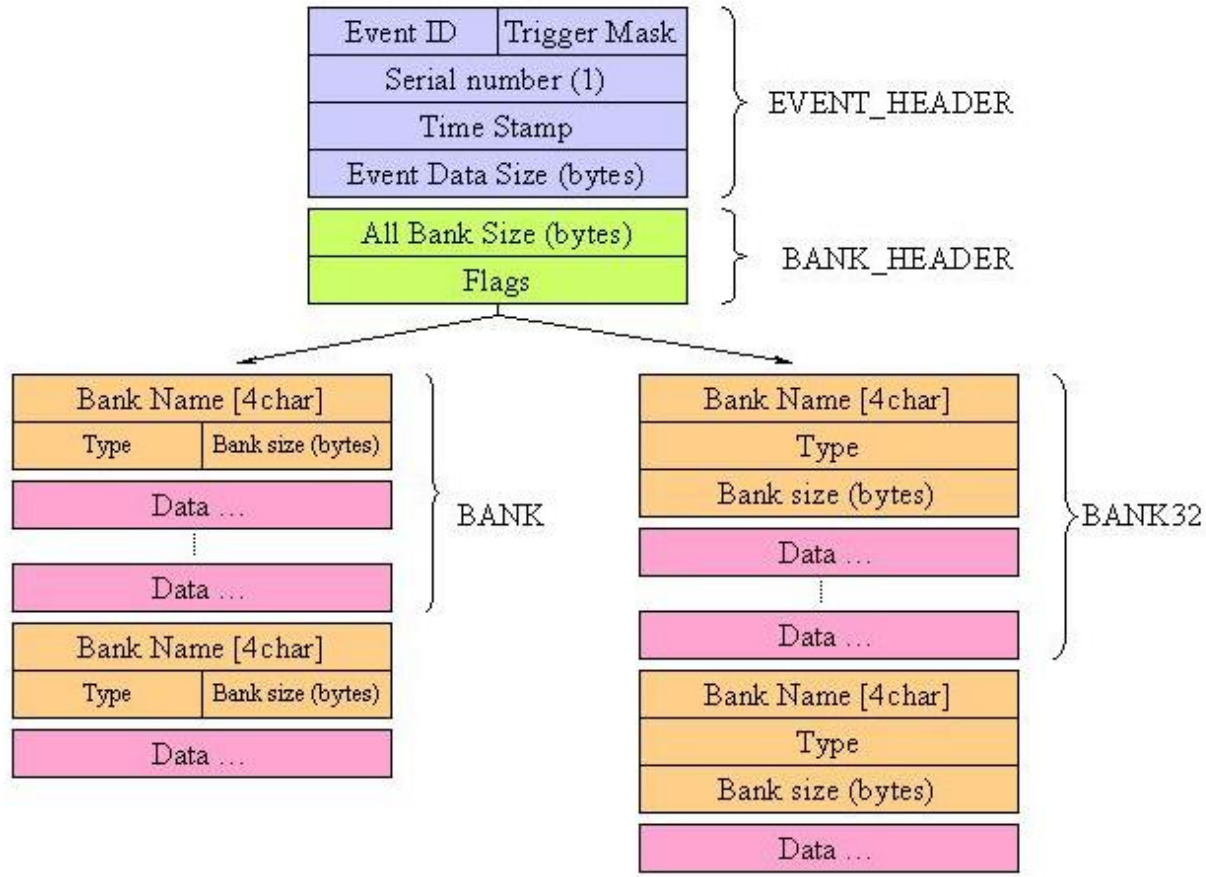
New Task

- Create a data format for DMC specific data
- Similar to that of the DAQ data format



New Task

- Create a data format for DMC specific data
- Similar to that of the DAQ data format
- This data will go into one of these banks



New Task

- Need to look at root files and/or CSV files to see what data is stored
  - Not sure where CSV files are outputted or where they are used
- To start I am assuming the same data will be stored in MIDAS banks

Outcome from DMC meeting

- DMC group is not too upset by the prospect of a MIDAS dependency
- Linking to MIDAS repository better than copy and pasting code

- Looming question: where does this code exist?
  - In python code, take data as it exists in python
  - After python code, use CVS files as input, and outputs MIDAS banks
    - Creates separation of DMC from IO Libraries
    - File storage problem?

At TRIUMF next week

- Spend a significant time with Ben
- I want to look into the MIDAS IO repository
  - How can we use it
  - What is the functionality
  - Is it a standalone repository? Do we need to rest of MIDAS?
- Will be close to MIDAS group

Collaboration Meeting

- Amy suggested I give a talk about IO Library
- I have emailed Tali Figueroa, but haven’t gotten a reply