Weekly Meeting

August 23 2017

DMC & IO Library

- Have gotten DMCPreBats code to work on my brazos account*

DMC & IO Library

- Have gotten DMCPreBats code to work on my brazos account*

- *Had to comment out section of PreBats code:

```
for ii in range(1,numsubtypes+1):
    ttt=inputs['subtype%d'%ii].split(',')
    simsubtype.append(ttt.pop(0))
    detnumbers.append(map(int, ttt))
    ttt=inputs['DMCInputfile%d'%ii]
    dmc_input_files.append(ttt)
    ttt=inputs['pttemplate%d'%ii]
    pt_templates.append(ttt)
    if ttt.split('.')[-1] == 'txt':
        template_type='text'
    else:
        if inputs.get('temptype%d'%ii) and inputs.get('temptype%d'%ii).strip() !='':
            ttt=inputs.get('temptype%d'%ii).strip()
            template_type=ttt
        else:
            template_type='detspec'
    ttt=inputs['qtemplate%d'%ii]
    q_templates.append(ttt)
    dmc_pulse_dirs.append(str(indir+'/'+simsubtype[ii-1]))
    if inputs.get('subrename%d'%ii) and inputs.get('subrename%d'%ii).strip() !='':
        simsubtype[ii-1]=inputs.get('subrename%d'%ii).strip()
    if run_from_previous == 1 :
        ttt=inputs['precalfile%d'%ii]
        precalfiles.append(ttt)
    dmc_out_dirs.append(str(outdir+'/'+simsubtype[ii-1]))
if mergeformat == 'ROOT':
    merge_out_dir=str(outdir+'/'+'combined_ROOT_files')
elif mergeformat == 'Binary':
    merge_out_dir=str(outdir+'/'+'combined_Binary_files')
#liteDets=[ int(thd) for thd in inputs['litedets'].split() ]
#procDets=[ int(thd) for thd in inputs['procdets'].split() ]
```

```
------------------------------------------------
                DMC to CDMSBats Formatting
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Running Module State:  -1
Config file found:  /home/mjwilson/DMCPreBats/configfile.cfg
Traceback (most recent call last):
  File "launcher.py", line 169, in <module>
    liteDets=[ int(thd) for thd in inputs['litedets'].split() ]
KeyError: 'litedets'
(python)[mjwilson@login03 code]$
```

DMC & IO Library

- When I comment out those 2 lines, code runs until completion, producing combined root files

- I'm not sure about why this is happening (something to do with configuration file?) or the consequences of removing those lines

- I'm trying to contact DMC people who may know, besides Jorge

DMC & IO Library

- Converted/scaled waveforms get put into txt files, which get read in by PreBats code to turn into root files

```
FET_pulses_cal_176.txt  FET_pulses_cal_285.txt  FET_pulses_cal_402.txt  FET_pulses_cal_69.txt   TES_pulses_cal_179.txt  TES_pulses_cal_288.txt  TES_pulses_cal_405.txt  TES_pulses_cal_71.txt
FET_pulses_cal_177.txt  FET_pulses_cal_286.txt  FET_pulses_cal_403.txt  FET_pulses_cal_6.txt    TES_pulses_cal_17.txt   TES_pulses_cal_289.txt  TES_pulses_cal_406.txt  TES_pulses_cal_72.txt
FET_pulses_cal_178.txt  FET_pulses_cal_287.txt  FET_pulses_cal_404.txt  FET_pulses_cal_70.txt   TES_pulses_cal_180.txt  TES_pulses_cal_28.txt   TES_pulses_cal_407.txt  TES_pulses_cal_73.txt
FET_pulses_cal_179.txt  FET_pulses_cal_288.txt  FET_pulses_cal_405.txt  FET_pulses_cal_71.txt   TES_pulses_cal_181.txt  TES_pulses_cal_290.txt  TES_pulses_cal_408.txt  TES_pulses_cal_74.txt
FET_pulses_cal_17.txt   FET_pulses_cal_289.txt  FET_pulses_cal_406.txt  FET_pulses_cal_72.txt   TES_pulses_cal_182.txt  TES_pulses_cal_291.txt  TES_pulses_cal_409.txt  TES_pulses_cal_75.txt
FET_pulses_cal_180.txt  FET_pulses_cal_28.txt   FET_pulses_cal_407.txt  FET_pulses_cal_73.txt   TES_pulses_cal_183.txt  TES_pulses_cal_292.txt  TES_pulses_cal_40.txt   TES_pulses_cal_76.txt
FET_pulses_cal_181.txt  FET_pulses_cal_290.txt  FET_pulses_cal_408.txt  FET_pulses_cal_74.txt   TES_pulses_cal_184.txt  TES_pulses_cal_293.txt  TES_pulses_cal_410.txt  TES_pulses_cal_77.txt
FET_pulses_cal_182.txt  FET_pulses_cal_291.txt  FET_pulses_cal_409.txt  FET_pulses_cal_75.txt   TES_pulses_cal_185.txt  TES_pulses_cal_294.txt  TES_pulses_cal_411.txt  TES_pulses_cal_78.txt
FET_pulses_cal_183.txt  FET_pulses_cal_292.txt  FET_pulses_cal_40.txt   FET_pulses_cal_76.txt   TES_pulses_cal_186.txt  TES_pulses_cal_295.txt  TES_pulses_cal_412.txt  TES_pulses_cal_79.txt
FET_pulses_cal_184.txt  FET_pulses_cal_293.txt  FET_pulses_cal_410.txt  FET_pulses_cal_77.txt   TES_pulses_cal_187.txt  TES_pulses_cal_297.txt  TES_pulses_cal_413.txt  TES_pulses_cal_7.txt
FET_pulses_cal_185.txt  FET_pulses_cal_294.txt  FET_pulses_cal_411.txt  FET_pulses_cal_78.txt   TES_pulses_cal_188.txt  TES_pulses_cal_298.txt  TES_pulses_cal_414.txt  TES_pulses_cal_80.txt
FET_pulses_cal_186.txt  FET_pulses_cal_295.txt  FET_pulses_cal_412.txt  FET_pulses_cal_79.txt   TES_pulses_cal_189.txt  TES_pulses_cal_299.txt  TES_pulses_cal_416.txt  TES_pulses_cal_81.txt
FET_pulses_cal_187.txt  FET_pulses_cal_297.txt  FET_pulses_cal_413.txt  FET_pulses_cal_7.txt    TES_pulses_cal_18.txt   TES_pulses_cal_29.txt   TES_pulses_cal_417.txt  TES_pulses_cal_82.txt
FET_pulses_cal_188.txt  FET_pulses_cal_298.txt  FET_pulses_cal_414.txt  FET_pulses_cal_80.txt   TES_pulses_cal_190.txt  TES_pulses_cal_2.txt    TES_pulses_cal_418.txt  TES_pulses_cal_83.txt
FET_pulses_cal_189.txt  FET_pulses_cal_299.txt  FET_pulses_cal_416.txt  FET_pulses_cal_81.txt   TES_pulses_cal_191.txt  TES_pulses_cal_300.txt  TES_pulses_cal_419.txt  TES_pulses_cal_84.txt
FET_pulses_cal_18.txt   FET_pulses_cal_29.txt   FET_pulses_cal_417.txt  FET_pulses_cal_82.txt   TES_pulses_cal_192.txt  TES_pulses_cal_301.txt  TES_pulses_cal_41.txt   TES_pulses_cal_85.txt
FET_pulses_cal_190.txt  FET_pulses_cal_2.txt    FET_pulses_cal_418.txt  FET_pulses_cal_83.txt   TES_pulses_cal_193.txt  TES_pulses_cal_303.txt  TES_pulses_cal_421.txt  TES_pulses_cal_86.txt
FET_pulses_cal_191.txt  FET_pulses_cal_300.txt  FET_pulses_cal_419.txt  FET_pulses_cal_84.txt   TES_pulses_cal_194.txt  TES_pulses_cal_304.txt  TES_pulses_cal_423.txt  TES_pulses_cal_87.txt
FET_pulses_cal_192.txt  FET_pulses_cal_301.txt  FET_pulses_cal_41.txt   FET_pulses_cal_85.txt   TES_pulses_cal_195.txt  TES_pulses_cal_305.txt  TES_pulses_cal_424.txt  TES_pulses_cal_88.txt
FET_pulses_cal_193.txt  FET_pulses_cal_303.txt  FET_pulses_cal_421.txt  FET_pulses_cal_86.txt   TES_pulses_cal_196.txt  TES_pulses_cal_306.txt  TES_pulses_cal_425.txt  TES_pulses_cal_89.txt
FET_pulses_cal_194.txt  FET_pulses_cal_304.txt  FET_pulses_cal_423.txt  FET_pulses_cal_87.txt   TES_pulses_cal_197.txt  TES_pulses_cal_307.txt  TES_pulses_cal_426.txt  TES_pulses_cal_8.txt
FET_pulses_cal_195.txt  FET_pulses_cal_305.txt  FET_pulses_cal_424.txt  FET_pulses_cal_88.txt   TES_pulses_cal_198.txt  TES_pulses_cal_308.txt  TES_pulses_cal_428.txt  TES_pulses_cal_90.txt
FET_pulses_cal_196.txt  FET_pulses_cal_306.txt  FET_pulses_cal_425.txt  FET_pulses_cal_89.txt   TES_pulses_cal_199.txt  TES_pulses_cal_309.txt  TES_pulses_cal_429.txt  TES_pulses_cal_91.txt
FET_pulses_cal_197.txt  FET_pulses_cal_307.txt  FET_pulses_cal_426.txt  FET_pulses_cal_8.txt    TES_pulses_cal_19.txt   TES_pulses_cal_30.txt   TES_pulses_cal_42.txt   TES_pulses_cal_92.txt
FET_pulses_cal_198.txt  FET_pulses_cal_308.txt  FET_pulses_cal_428.txt  FET_pulses_cal_90.txt   TES_pulses_cal_1.txt    TES_pulses_cal_310.txt  TES_pulses_cal_430.txt  TES_pulses_cal_93.txt
FET_pulses_cal_199.txt  FET_pulses_cal_309.txt  FET_pulses_cal_429.txt  FET_pulses_cal_91.txt   TES_pulses_cal_200.txt  TES_pulses_cal_311.txt  TES_pulses_cal_431.txt  TES_pulses_cal_94.txt
FET_pulses_cal_19.txt   FET_pulses_cal_30.txt   FET_pulses_cal_42.txt   FET_pulses_cal_92.txt   TES_pulses_cal_201.txt  TES_pulses_cal_312.txt  TES_pulses_cal_432.txt  TES_pulses_cal_95.txt
FET_pulses_cal_1.txt    FET_pulses_cal_310.txt  FET_pulses_cal_430.txt  FET_pulses_cal_93.txt   TES_pulses_cal_202.txt  TES_pulses_cal_313.txt  TES_pulses_cal_434.txt  TES_pulses_cal_96.txt
FET_pulses_cal_200.txt  FET_pulses_cal_311.txt  FET_pulses_cal_431.txt  FET_pulses_cal_94.txt   TES_pulses_cal_203.txt  TES_pulses_cal_314.txt  TES_pulses_cal_435.txt  TES_pulses_cal_97.txt
FET_pulses_cal_201.txt  FET_pulses_cal_312.txt  FET_pulses_cal_432.txt  FET_pulses_cal_95.txt   TES_pulses_cal_204.txt  TES_pulses_cal_315.txt  TES_pulses_cal_436.txt  TES_pulses_cal_98.txt
FET_pulses_cal_202.txt  FET_pulses_cal_313.txt  FET_pulses_cal_434.txt  FET_pulses_cal_96.txt   TES_pulses_cal_205.txt  TES_pulses_cal_317.txt  TES_pulses_cal_437.txt  TES_pulses_cal_99.txt
FET_pulses_cal_203.txt  FET_pulses_cal_314.txt  FET_pulses_cal_435.txt  FET_pulses_cal_97.txt   TES_pulses_cal_206.txt  TES_pulses_cal_319.txt  TES_pulses_cal_439.txt  TES_pulses_cal_9.txt
FET_pulses_cal_204.txt  FET_pulses_cal_315.txt  FET_pulses_cal_436.txt  FET_pulses_cal_98.txt   TES_pulses_cal_207.txt  TES_pulses_cal_31.txt   TES_pulses_cal_43.txt
FET_pulses_cal_205.txt  FET_pulses_cal_317.txt  FET_pulses_cal_437.txt  FET_pulses_cal_99.txt   TES_pulses_cal_208.txt  TES_pulses_cal_320.txt  TES_pulses_cal_440.txt
FET_pulses_cal_206.txt  FET_pulses_cal_319.txt  FET_pulses_cal_439.txt  FET_pulses_cal_9.txt    TES_pulses_cal_209.txt  TES_pulses_cal_321.txt  TES_pulses_cal_441.txt
FET_pulses_cal_207.txt  FET_pulses_cal_31.txt   FET_pulses_cal_43.txt   TES_pulses_cal_100.txt  TES_pulses_cal_20.txt   TES_pulses_cal_322.txt  TES_pulses_cal_442.txt
FET_pulses_cal_208.txt  FET_pulses_cal_320.txt  FET_pulses_cal_440.txt  TES_pulses_cal_101.txt  TES_pulses_cal_210.txt  TES_pulses_cal_324.txt  TES_pulses_cal_443.txt
FET_pulses_cal_209.txt  FET_pulses_cal_321.txt  FET_pulses_cal_441.txt  TES_pulses_cal_102.txt  TES_pulses_cal_211.txt  TES_pulses_cal_325.txt  TES_pulses_cal_444.txt
(python)[mjwilson@login03 text_files]$ ^[[2~
```

- Working on code that will essentially do the same thing for MIDAS SNOLAB format

DMC & IO Library

```
6.55999999999999432e+01,5.668645379475429991e+01,2.120757518267621222e+01,5.703970460546605281e+00,7.266267495376055763e+01,3.041513273024680331e+01,7.076887107793083942e+00,1.094701376244246660e+01,2.69033484$
6.71999999999998863e+01,5.624590855177339677e+01,2.173299762340816343e+01,5.847439442039980229e+00,7.286465774095424308e+01,3.024410710164013949e+01,7.395924889862460105e+00,1.100030689091977187e+01,2.68460137$
6.87999999999999716e+01,5.611115167622307354e+01,2.157544430940670921e+01,6.109616722581560744e+00,7.232638450580304834e+01,3.058413160865482538e+01,7.364578381920524386e+00,1.124552172410096951e+01,2.67153865$
7.04000000000000568e+01,5.673143357845724921e+01,2.161516129849950474e+01,6.441500725795247462e+00,7.118497454954187731e+01,3.212029291333778502e+01,7.562890535569029460e+00,1.150592471393277094e+01,2.71957251$
7.20000000000000000e+01,5.640625154488249393e+01,2.156769328307041889e+01,6.615328272479172433e+00,6.995351007903448703e+01,3.377305568810412950e+01,8.315706254600879532e+00,1.183340621459138475e+01,2.77454772$
7.35999999999999432e+01,5.502295857990787908e+01,2.103774198347603175e+01,6.492901660419134302e+00,7.011247157628676518e+01,3.518830936001076992e+01,8.360339810618816259e+00,1.232396870403228917e+01,2.98087630$
7.52000000000000284e+01,5.267161476838052181e+01,2.094173293083868259e+01,6.595446620572610108e+00,7.065874637831997518e+01,3.617058546072302505e+01,8.941271141045504578e+00,1.273688061707845343e+01,3.14000059$
7.67999999999999716e+01,5.001222089530200066e+01,2.131849330954835509e+01,6.955048396064447580e+00,7.002467095342343839e+01,3.582892716224846197e+01,9.706746212596629064e+00,1.272775916913227690e+01,3.22112230$
7.83999999999999147e+01,4.833307655429623395e+01,2.174391705379494866e+01,7.199437170236583583e+00,6.953425732286832783e+01,3.540352706540576122e+01,9.813449518085857193e+00,1.263297977573443909e+01,3.18466732$
8.00000000000000000e+01,4.808709636963843792e+01,2.222203202983267545e+01,7.276036030770076657e+00,6.976568382213777397e+01,3.430242947228300920e+01,1.069054149839173640e+01,1.265472355721066400e+01,3.08271787$
8.15999999999999432e+01,4.721321451061828611e+01,2.265999808743274357e+01,7.266325201959070057e+00,6.899005656183979340e+01,3.390411010207327536e+01,1.139482569267037171e+01,1.355341398712840650e+01,3.11747971$
8.31999999999999863e+01,4.630728612176440606e+01,2.253140064041033597e+01,7.481861968666924767e+00,6.778220774875958909e+01,3.355218526021029390e+01,1.212296903725776609e+01,1.407206297366446002e+01,3.25031779$
8.47999999999999716e+01,4.635984187565252768e+01,2.202171380501975051e+01,7.924986641113520136e+00,6.653166327253509849e+01,3.381757878782941873e+01,1.242067601989301373e+01,1.431576184518424988e+01,3.45584130$
8.64000000000000568e+01,4.656698075432083073e+01,2.103915136405250763e+01,8.105392837973846909e+00,6.556167687795145582e+01,3.461504060365790281e+01,1.251697081602428341e+01,1.395351827029948133e+01,3.45524888$
8.80000000000000284e+01,4.661227019722353759e+01,2.015111677245636912e+01,8.185093994782022264e+00,6.623063868736720394e+01,3.679771622145752019e+01,1.238805785472750465e+01,1.369499401267121463e+01,3.35712754$
8.95999999999999432e+01,4.669934398575627199e+01,1.918901532703193880e+01,8.363798913510857247e+00,6.619654018358789926e+01,3.764943562520263498e+01,1.233519008596036670e+01,1.477564922731737695e+01,3.38963389$
9.11999999999998863e+01,4.714415269610056214e+01,1.927040885170235995e+01,9.079736369301146581e+00,6.560638162347076729e+01,3.688252546914447549e+01,1.256942618570445624e+01,1.574700938456193988e+01,3.46323710$
9.27999999999999716e+01,4.762797985780814969e+01,1.998422233668678416e+01,9.798979224360341078e+00,6.503383453233567488e+01,3.634774069655396289e+01,1.259068157496829521e+01,1.603684230049730886e+01,3.42841768$
9.43999999999999147e+01,4.780602331855023124e+01,2.011985172202046712e+01,1.034180566384743649e+01,6.802387125625149622e+01,3.470988554931601300e+01,1.236831154779534359e+01,1.624663586244891533e+01,3.43498411$
9.60000000000000000e+01,4.877909919240767778e+01,2.051545698299053910e+01,9.945120240733006156e+00,6.807209316777878882e+01,3.319026033574362344e+01,1.220504118216767608e+01,1.699227575513238975e+01,3.44173022$
9.75999999999999432e+01,4.758593104489730763e+01,2.129421259911681830e+01,9.687124257806786432e+00,6.672521997432352237e+01,3.316732857803714296e+01,1.233312400976309320e+01,1.680026124090517925e+01,3.40759446$
9.92000000000000284e+01,4.802492731581741481e+01,2.206621320908475425e+01,9.129700828004917734e+00,6.522607476755374023e+01,3.250150614888096356e+01,1.246985548848820536e+01,1.689852704209376455e+01,3.35577079$
1.00799999999999972e+02,4.684830418960764575e+01,2.296827217994029979e+01,8.944858334362598029e+00,6.497453098535277149e+01,3.206767577699336158e+01,1.240836390057271110e+01,1.703011493212552452e+01,3.37678591$
1.02399999999999915e+02,4.588886807647430999e+01,2.319527511778741058e+01,9.565722270289903406e+00,6.467700605481896048e+01,3.218279169983968302e+01,1.191430429847114958e+01,1.745822291359175082e+01,3.47753561$
1.04000000000000000e+02,4.573929647444715130e+01,2.253114707002022143e+01,1.027557033165772360e+01,6.647438604761053682e+01,3.287737969690012818e+01,1.153269762275318477e+01,1.755826538087192290e+01,3.49739034$
1.05599999999999943e+02,4.520022336923847248e+01,2.182995169481948139e+01,1.088334317007501362e+01,6.652689498670183355e+01,3.336024473337577234e+01,1.124642097666522211e+01,1.746152128239003787e+01,3.50424787$
1.07199999999999886e+02,4.424909948660597081e+01,2.131872196206585102e+01,1.123569500025128676e+01,6.574250297084864769e+01,3.351294046552192185e+01,1.201419117875397546e+01,1.771597891198342367e+01,3.52341669$
1.08799999999999829e+02,4.365905357518978036e+01,2.102341811843927033e+01,1.179728783822439553e+01,6.555863278368622105e+01,3.306827478154475131e+01,1.267790682019816551e+01,1.752936847095285344e+01,3.49267864$
1.10400000000000057e+02,4.342440313954224962e+01,2.128890386851682592e+01,1.243615682089973795e+01,6.486778049247064359e+01,3.226786342455956458e+01,1.301654570172737913e+01,1.706280255897172913e+01,3.48979532$
1.12000000000000000e+02,4.254458951628529917e+01,2.211488539956375021e+01,1.300800135447692085e+01,6.426456997735897403e+01,3.190362219866912952e+01,1.386995227450790047e+01,1.649782212175952267e+01,3.51556940$
1.13599999999999943e+02,4.150261256782034280e+01,2.196044746682944293e+01,1.274575281799060100e+01,6.306839640247974899e+01,3.246582002335262729e+01,1.441903690624294043e+01,1.633066089228892892e+01,3.52861311$
1.15199999999999886e+02,4.018828546625848475e+01,2.180021156158563045e+01,1.248658921812821987e+01,6.263841545673584221e+01,3.240868399078202344e+01,1.475062202517853471e+01,1.671596389538035510e+01,3.49387600$
1.16799999999999972e+02,3.956079077822596947e+01,2.157886009426147567e+01,1.231588189263042338e+01,6.265832226402338279e+01,3.368488344033342230e+01,1.488619750260290903e+01,1.715955672729090352e+01,3.44493334$
1.18399999999999915e+02,3.885711580255475894e+01,2.103927297358893966e+01,1.281240364721191938e+01,6.188807120102027426e+01,3.483452804420714699e+01,1.515557355547471552e+01,1.784789270121309102e+01,3.48684692$
1.19999999999999858e+02,3.740564110922822749e+01,2.076113706780023804e+01,1.275629991569213395e+01,6.178870789325710433e+01,3.494206031607134832e+01,1.576746725345916289e+01,1.811419572437938541e+01,3.61187126$
1.21599999999999943e+02,3.598784807993837376e+01,2.122142189307768234e+01,1.298761625061109370e+01,6.261995270514089640e+01,3.626044004609876481e+01,1.598696194114280189e+01,1.853564753872373316e+01,3.59612139$
1.23199999999999886e+02,3.444884851480536619e+01,2.139888186005573404e+01,1.331413144398245585e+01,6.283406566247992941e+01,3.584329728390817849e+01,1.599955844906538438e+01,1.908617953411231483e+01,3.53503008$
1.24799999999999972e+02,3.306099065357460631e+01,2.142665519700665300e+01,1.363950182348626861e+01,6.190227553456297471e+01,3.534905473893323347e+01,1.569500580359484054e+01,1.948595938704626462e+01,3.43776329$
1.26399999999999773e+02,3.279123975857921636e+01,2.111574992893391212e+01,1.403299107589537975e+01,6.122549799140308124e+01,3.460535472295305226e+01,1.550543711903804400e+01,1.976730605633768434e+01,3.40592684$
1.28000000000000000e+02,3.241701529015776373e+01,2.088336098805675755e+01,1.383874528343574006e+01,6.105062801988596988e+01,3.421510679802807431e+01,1.542350541044740631e+01,1.944770646116812784e+01,3.34552652$
1.29599999999999943e+02,3.214098540976567509e+01,2.069660120988578811e+01,1.406710429579832322e+01,6.119597993218111753e+01,3.385702741272664440e+01,1.531372474726570814e+01,1.880514280045905727e+01,3.35809012$
1.31199999999999886e+02,3.219582183872590520e+01,2.072892931744294387e+01,1.446022874243903900e+01,6.110260483133464504e+01,3.333143471270927449e+01,1.496552597562817688e+01,1.782196621316154861e+01,3.36150697$
1.32800000000000114e+02,3.177219969232962882e+01,2.147031859039558199e+01,1.427349798487508536e+01,6.096030189184996573e+01,3.235543080485783207e+01,1.604516616488387015e+01,1.751824621877318933e+01,3.43724802$
1.34399999999999773e+02,3.137698741519551859e+01,2.250152422547389364e+01,1.413960791290683083e+01,6.169203210844115404e+01,3.193651838865688930e+01,1.676961088327693261e+01,1.779528142597109763e+01,3.53358023$
1.36000000000000000e+02,3.098594278322925177e+01,2.250840950320397837e+01,1.394888101093622623e+01,6.144593072329892891e+01,3.176310039184718548e+01,1.692334139636114188e+01,1.843795490882338228e+01,3.44910531$
1.37599999999999943e+02,3.051117296215475960e+01,2.254164250983873075e+01,1.365444573753581103e+01,5.999309869269472273e+01,3.138633251083959763e+01,1.628088488711227910e+01,1.879472429869021255e+01,3.40000123$
1.39199999999999886e+02,3.108557919912797018e+01,2.195140572336675433e+01,1.335941407351388932e+01,5.992698641701228013e+01,3.262444186898335374e+01,1.611249314238690644e+01,1.850578526250030009e+01,3.50243934$
```

DMC & IO Library

- Challenges
  - Files storage format within output directory – pulse data is stored in directories specific to each detector or detector type "subtype". Still learning this formatting
  - Python to c++ conversions*

- I think it makes sense for the DMC MIDAS write to be written in python, but can be persuaded otherwise.

DMC Data Format

Author and Contact: Matt Wilson, UofT

DMC DATA FORMAT DRAFT V1: Created August 18 '17. Last updated: August 18 '17

bits		31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
	0x1	format version / total n events
	0x2	SIM series number
		SIM event ID
		SIM recoil energy
		SIM avg x
		SIM avg y
		SIM avg z
	0x3	n detectors in event
		detector type
		detector name (e.g. T1Z2)
	0x4	n channels in detector
		channel type / channel num
		channel name (e.g. PAS1)
	0x5	phonon side sum (T/F)
		n samples / side
		samp1 / samp0
		⋮
		sampN / sampN-1
	0x6	charge side sum (T/F)
		n samples / side
		samp1 / samp0
		⋮
		sampN / sampN-1
	0x7	phonon total sum (T/F)
		n samples
		samp1 / samp0
		⋮
		sampN / sampN-1
	0x8	charge total sum (T/F)
		n samples
		samp1 / samp0
		⋮
		sampN / sampN-1
	0x9	end

x N events, x N detectors, x N ch, x 2

Amy's Email about tasks
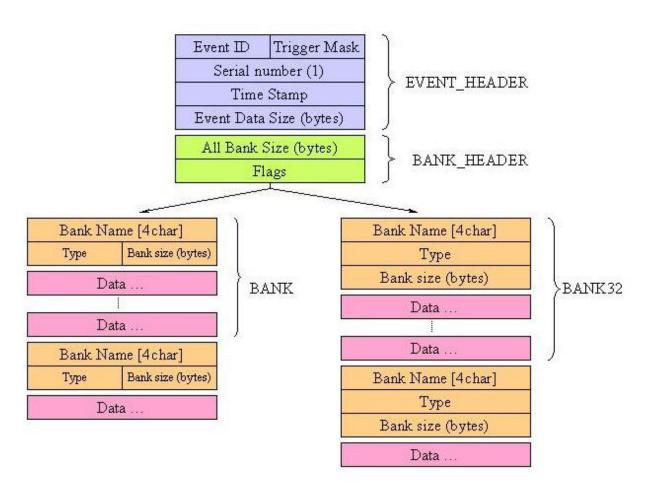
1. Test the speed of cdmsbats processing

2. Develop programs to make automated DQ decisions about processed data

3. Makes system that emails/texts/etc the appropriate people when an alert is logged in the database

- Separate discussion

SNOLAB Analysis Meeting

- Noah asked if I could give a talk during the SNOLAB analysis meeting this Friday about IO Library

extra

EVENT_HEADER
- Event ID | Trigger Mask
- Serial number (1)
- Time Stamp
- Event Data Size (bytes)

BANK_HEADER
- All Bank Size (bytes)
- Flags

BANK
- Bank Name [4char]
- Type | Bank size (bytes)
- Data …
- Data …
- Bank Name [4char]
- Type | Bank size (bytes)
- Data …

BANK32
- Bank Name [4char]
- Type
- Bank size (bytes)
- Data …
- Data …
- Bank Name [4char]
- Type
- Bank size (bytes)
- Data …

Author and Contact: Belina von Krosigk, UBC
DATA FORMAT VERSION 1: Created: 05. Feb. '16, Last updated: 30. Jun. '16

bits	31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16	15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
0x9	format version=1	total n triggers read
0x5	event size in bytes	
	trigger ID	
	trigger type	
	global timestamp low	
	global timestamp high	
0x7	n primitives in event	
	length of entry (=0x6 block) in bytes	
0x6	trig status	pileup	detector id	index
	UT at which rt was issued	
	time fraction rt was run (100nsec/count)	
	time of trigger in sec	time rt was run in sec
	mask pairs	time fraction of trigger (100nsec/count)
	trigger word	peak amplitude
0x3	n detectors in event	
0x2	detector type	detector id	index
	DCRC1 serial number	DCRC1 version	DCRC0 serial number	DCRC0 version
0x4	readout status	series time in sec
	series time fraction (100nsec/count)	
0x0	n channels to follow	
0x1	pre-trigger offset (22 bits)	ch num	ch type
	n pre-pulse samples	
	n on-pulse samples	
	n post-pulse samples	
	sampling rate high in kHz	sampling rate low in kHz
	samp1	samp0
	samp3	samp2
	sampN	sampN-1
0x8	total n preceding triggers	

(x N triggers, x N prims, x N dets, x N channels)