Shimin config file

DataPath: #Not sure if open to users

proj_path_base : "/SNS/SNAP/IPTS-26894/shared/autoreduce/mcp" # Path where save project data in MCP
  # button to browse for input folder
OB_path_base : "/SNS/SNAP/IPTS-26894/shared/autoreduce/mcp/OB_May2022" # Path where save OB data in MCP
  # button to browse for OB folder
result_path : "/SNS/SNAP/IPTS-26894/shared/insitu_recon/output_loopCronTest_10C_Tilt8" # Path where save the output data
  # ~~output folder or~~ provide the location for them.
search_string: "Tilt8deg_CT_GS_loop_10C" #SHOULD BE SAME AS API folder_tag
  # same as folder_tag, should we figure it out, provide a default

log_name : '/SNS/SNAP/IPTS-26894/shared/insitu_recon/logs/reclog_loopcrontest.log' # Not sure
  ~~# provide option in advanced tab to customize the location and name of the log file name~~

"""OB Parameter (May open to advanced users **NOT SURE)"""
OB_sub_folder_exists : False #open beam data path sub-folders
  # what is that - go and look inside the sub-folders.
num_OB_set : 5 #number of open beam datasets
  # number of ob to use
  # in advanced tab for sure. It will be a radio-button
OB_gain_factor : 1.00 #gain factor for open beam to match the counts of projection data
  # in advanced. Should we provide an option to calculate this one by doing ROI on integrated signal
  # auto-populate this by finding the proton charge of sample and ob
"""""""

#SNAP API params
SnapApi: # Need be set at the beginning of measurement to start experiment manually and saved for following code running
goni1: 8.0 # degrees
  # what is the units. Which one is goni1. Should we provide a picture? This should go in a second tab called “instrument"
goni2: 0.0 # degrees
  # same thing
folder_tag: 'Tilt8deg_CT_GS_loop_10C' # "IMPORTANT" same as searching string
  # no need to have it twice in the UI
file_tag: ‘8degtilt’. # not important but keep in advanced tab (temporary file used in reconstruction)
  # how is the tag used. Can we figure it ourselves?
run_title: 'Tilt CT’ # display in the queue on SNAP interface , name of the job

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   # where and how this is used
run_notes: '8 degree tilts at 10 C'.   # same thing as above
   # probably with the first tab. TBD
p_charge: 10.0  # maybe we can try to retrieve it from the sample data
    # in the tab “instrument"

# Evaluation ROI

roi_info : [80, 100, 200, 200] # Should be determined by users but need visualization setting
after 1st reconstruction
   [ymin, xmin, height, width]
   # the UI should have a button saying RUN FIRST RECONSTRUCTION as this option
should be enabled after the first reconstruction is done
   # if None, take everything

QIthresh: 4.3 # User Setting
   # what is that

# in experiment tab
WaveOpts: # User setting
wav_idx_start : [1230]
wav_idx_end : [1271]

Detector offset
Distance source detector
# Should we instead ask for the range in lambda or TOF units and figure out ourselves that
index range
# that means we will need to add the Detector offset and distance source/detector

# in advanced tab
BasicPara:
detector_rows : 512 #May from Meta data, open to advanced users
detector_columns : 512 #May from Meta data, open to advanced users

# cropping
z_start : 150 #User setting # what is that. How it’s used.   # start
z_numSlice : 250 #User setting # how it’s used.  # how many to go
cut_cols : 400 #User setting # how it’s used, how to label it.  # width to take from center
(maybe replaced by next row)
# maybe new needed.  Col_start and col_num

# be able to display profile (counts vs lambda/tof/file index)
# be able to display projections


# should we hard code those?
# if not, what is their meanings?
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# advanced for imaging team only
align_paras: # Hide to users
x_off : 2
y_off : 2
cent_x : 256
cent_y: 256
unused_pix_num : 1
neighbor_pix_num : 3

# advanced?
# more detail about what they are in case we need to change them
# mbir parameters
# reconstruction prameters
RecOpts: # Hide to users
rot_center: 254.25      # get this one from the UI using 0 and 180degrees (just like pyMBIR_UI)
T : 2.0
p : 1.2
sharpness : 0.0
snr_db : 30.0
max_iterations : 200
num_threads : 120

# not mbir parameters (move to section that can be changed every time)
# what is that?
Max_ang_num: 55 .   # max number of measurement

# what is that
FreqStop: 3.   # number of acquisition before running evaluation code again
```