

SampleFolder_correctedPi0 ample code

`/gpfs/mnt/gpfs02/phenix/plhf/plhf1/nivram/fullCode_forREANA`

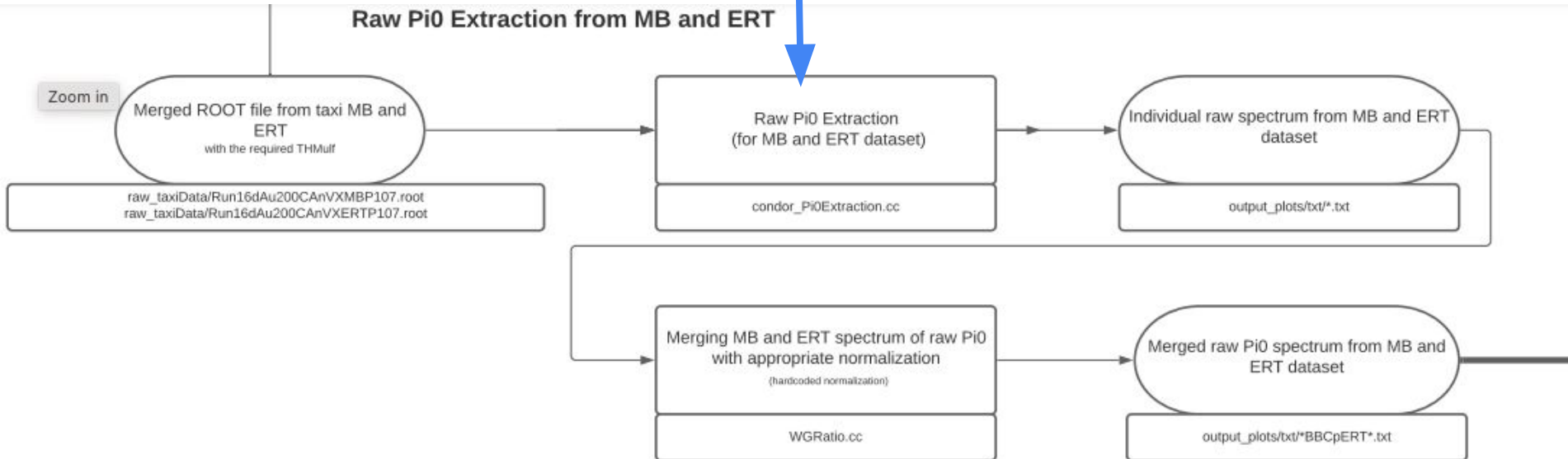
Block 1: in sample code

/gpfs/mnt/gpfs02/phenix/plhf/plhf1/nivram/fullCode_forREANA

condor_Pi0Extraction.cc : takes taxi ROOT file as input and provides output for MB and ERT triggered dataset. **Look at corrPi0Chain.csh to see how to run this code**

Raw Pi0 Extraction from MB and ERT

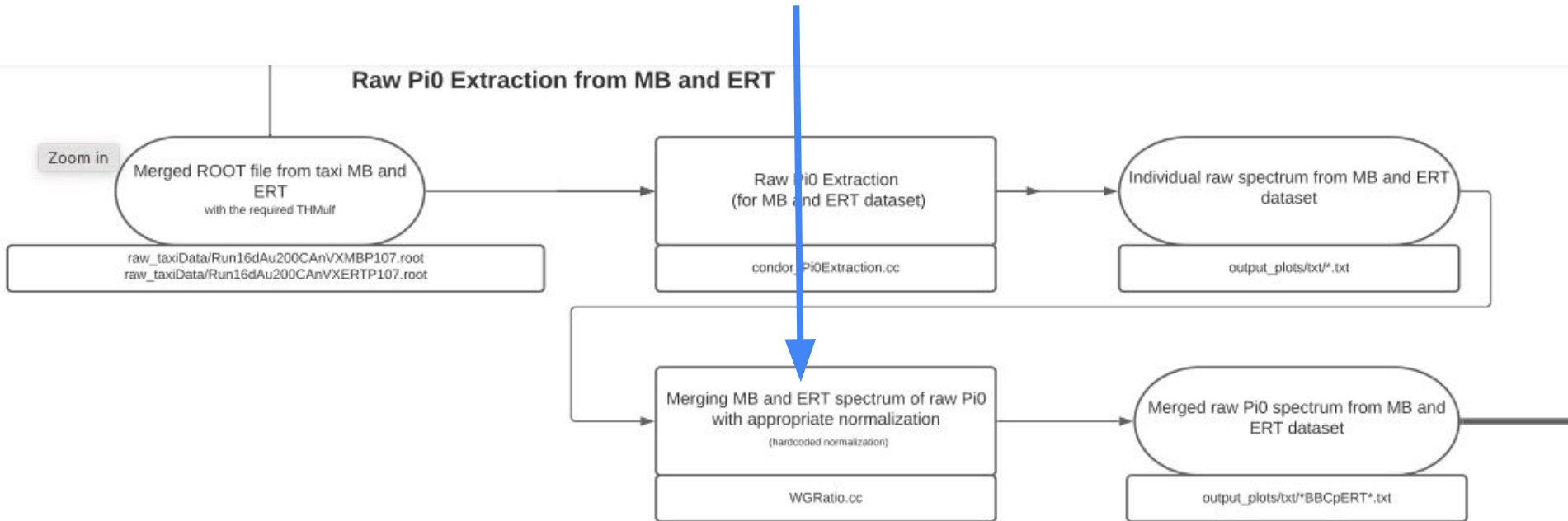
Zoom in



Block 1: in sample code

/gpfs/mnt/gpfs02/phenix/plhf/plhf1/nivram/fullCode_forREANA

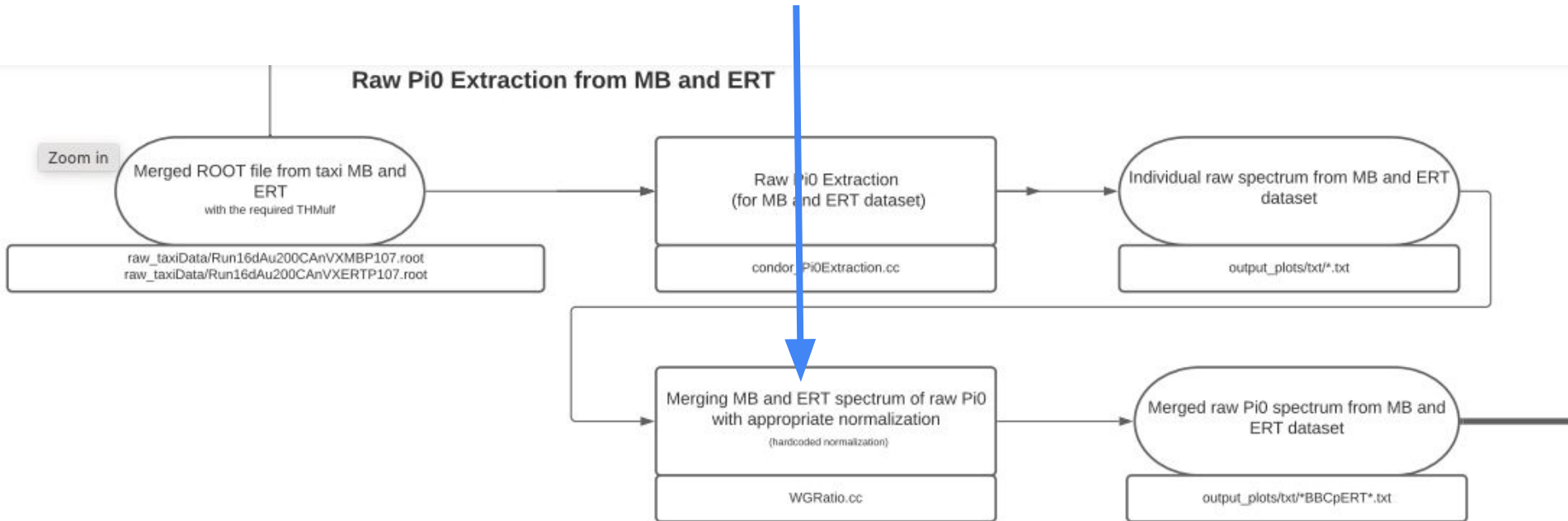
condor_Pi0Extraction.cc : takes txt files from previous step as input and gives a merged text file as output. **Look at corrPi0Chain.csh to see how to run this code**



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/gpfs/mnt/gpfs02/phenix/plhf/plhf1/nivram/fullCode_forREANA

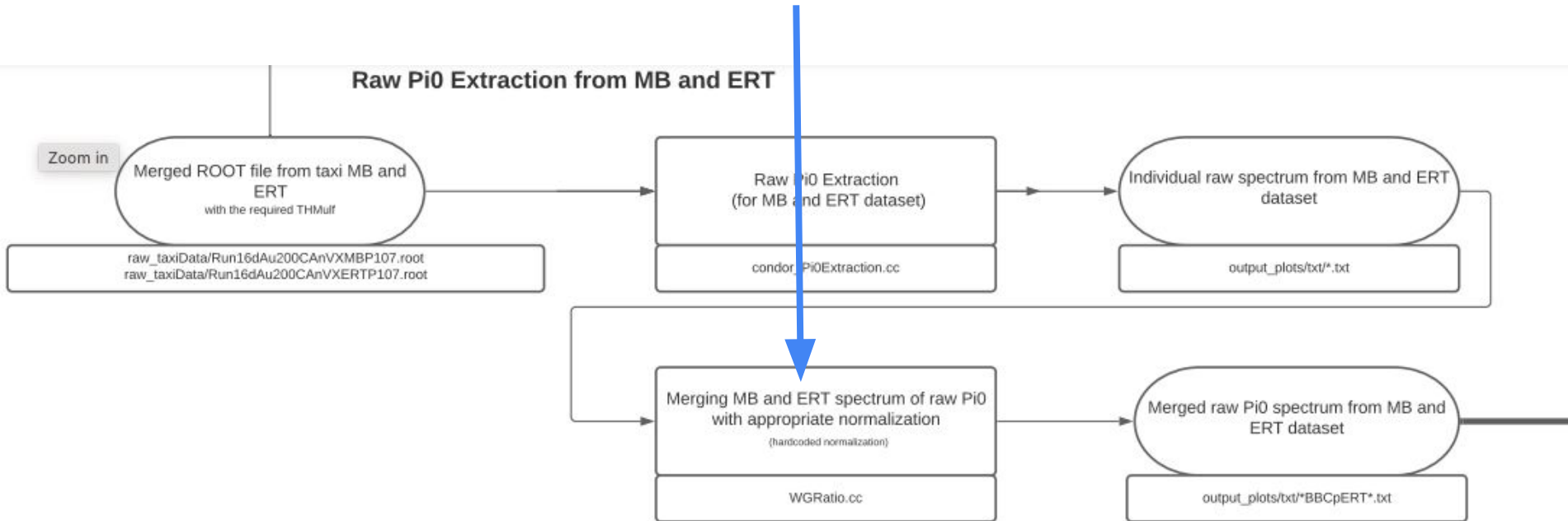
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/gpfs/mnt/gpfs02/phenix/plhf/plhf1/nivram/fullCode_forREANA

condor_Pi0Extraction.cc : takes txt files from previous step as input and gives a merged text file as output. **Look at corrPi0Chain.csh to see how to run this code**



Block 2: Creating Histogram from simulation TTrees

Go to folder :

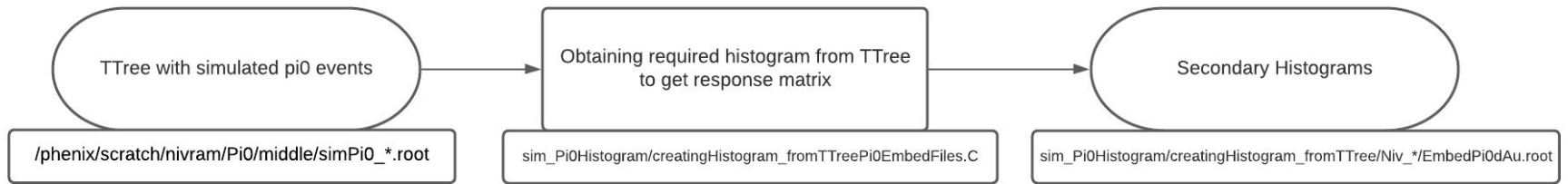
/gpfs/mnt/gpfs02/phenix/plhf/plhf1/nivram/fullCode_forREANA/sim_Pi0Histogram/creatingHistogram_fromTTree

Look at code `secNtuples.csh`

This creates a folder Niv_* and copies a bunch of calibration files. Then it runs code Pi0EmbedFiles.C over the root file simPi0_*.root (/phenix/scratch/nivram/Pi0/middle/simPi0_*.root). This gives output EmbedPi0dAu.root.

Merge all of this Niv_*/Embed* root files to create your main histogram root file run over a LARGE simulation.

I provide this merged histogram here :

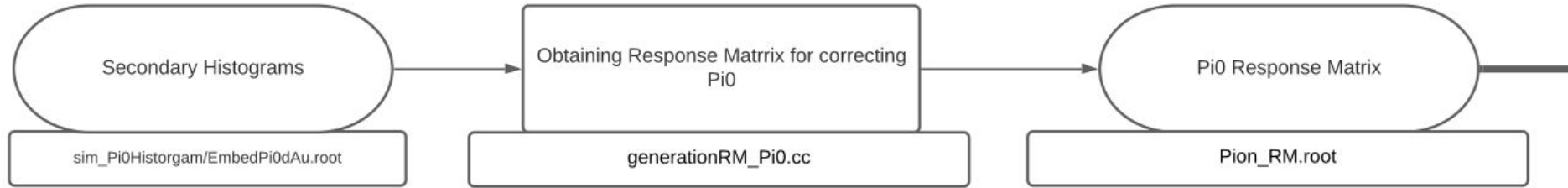


MERGE them all.

`haddPhenix EmbedPi0dAu.root Niv_*/Embed*`

Copy this to folder `fullCode_forREANA/sim_Pi0Histogram` (already done for this example)

Block3

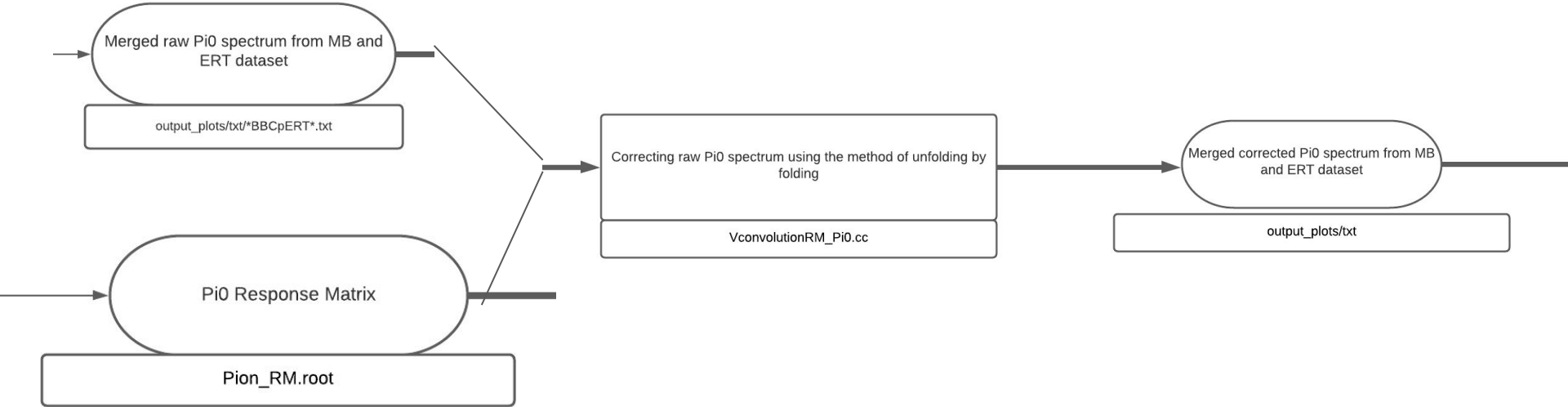


Input: `sim_Pi0Histogram/EmbedPi0dAu.root`

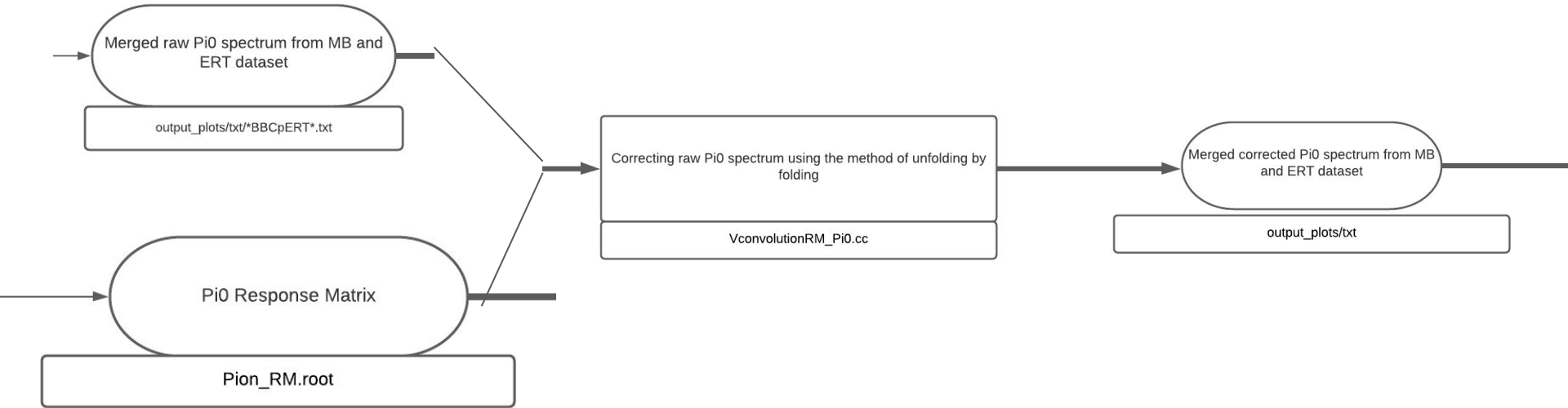
Code: `generationRM_Pi0.cc` (look at `corrPi0Chain.csh` to see how its run)

Output: `Pion_RM.root` (response matrix for unfolding. Analysis Notes has details on this procedure)

Block 4:



Block 4:



Input Files : merged raw Pi0 spectrum from Block1. Pion_RM.root from block 3. Input trial function (inputTrialFunction_Pi0.txt)

Code: VConvolution_Pi0.cc

Output : output_plots/txt/*corrPi0*