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|  | | **Tasks** | |
| **Reconstruction Phase** | | **Reconstruction**  *The core of the framework that performs the actual reconstruction. Does not require Monte-Carlo truth but does require a previously trained Neural Network model.* | **Model Training**  *This part of the framework enables the creation/training of new/existing models. It does require the Monte-Carlo truth data.* |
| **Tracking**  *Do the initial tracking of the raw hits.* | **Master script**  *The script with which the user interacts directly. Located in Code folder.* | **RTr1\_ReconstructTracks.py** | **MTr1\_GenerateTrainClusters.py**  **MTr2\_TrainModel.py**  **MTr3\_UnpackMeta.py** |
| **Submission script**  *The part of the code that is executed by the Master script. Located in the Code/Utilities folder.* | **RTr1a\_ReconstructTracks\_Sub.py**  **RTr1b\_LinkSegmentsY\_Sub.py**  **RTr1c\_LinkSegmentsX\_Sub.py** | **MTr\_IN.py**  **MTr\_TCN.py**  **MTr1\_GenerateTrainClusters\_Sub.py**  **MTr2\_TrainModel\_Sub.py** |
| **Track Merging**  *Merge track segments together into tracks.* | **Master script**  *The script with which the user interacts directly. Located in Code folder.* | **RUTr1\_MergeTracks.py** | **MUTr1\_GenerateTrainUnionSeeds.py**  **MUTr2\_TrainModel.py** |
| **Submission script**  *The part of the code that is executed by the Master script. Located in the Code/Utilities folder.* | **RUTr1a\_GenerateRawSelectedSeeds\_Sub.py**  **RUTr1b\_RefineSeeds\_Sub.py**  **RUTr1d\_MergeSeeds\_Sub.py** *(Currently not used)* | **MUTr1a\_GenerateRawSelectedSeeds\_Sub.py**  **MUTr1b\_RefineSeeds\_Sub.py**  **MUTr2\_TrainModel\_Sub.py** |
| **Track Classification**  *Classify tracks based on their morphology* | **Master script**  *The script with which the user interacts directly. Located in Code folder.* | **RCTr1\_ClassifyTracks.py** | **MCTr1\_GenerateTrainClassifyTracks.py**  **MCTr2\_TrainModel.py** |
| **Submission script**  *The part of the code that is executed by the Master script. Located in the Code/Utilities folder.* | **RCTr1a\_GenerateClassifiedTracks\_Sub.py** | **MCTr1a\_GenerateRawTrackSamples\_Sub.py**  **MCTr2\_TrainModel\_Sub.py** |
| **Vertexing**  *Combine tracks into vertices.* | **Master script**  *The script with which the user interacts directly. Located in Code folder.* | **RVx1\_ReconstructVertexes.py** | **MVx1\_GenerateTrainVertexSeeds.py**  **MVx2\_TrainModel.py** |
| **Submission script**  *The part of the code that is executed by the Master script. Located in the Code/Utilities folder.* | **RVx1a\_GenerateRawSelectedSeeds\_Sub.py**  **RVx1b\_RefineSeeds\_Sub.py**  **RVx1c\_AnalyseSeedLinks\_Sub.py**  **RVx1d\_MergeVertices\_Sub.py** | **MVx1a\_GenerateRawSelectedSeeds\_Sub.py**  **MVx1b\_RefineSeeds\_Sub.py**  **MVx2\_TrainModel\_Sub.py** |
| **Miscellaneous**  *These are optional scripts that do supplementary tasks such as data preparation and reconstruction evaluation. Usually requires Monte-Carlo generated data and/or FEDRA output.* | | **ETr\_EvalTrackRec.py**  *Calculates track reconstruction metrics*  **EVx\_EvalVertexRec.py**  *Calculates vertex reconstruction metrics*  **PrepareData.py**  *Optional script that prepares SND data by using raw csv’s. (Provided by Antonio Iuliano).* | **M\_ModelAnalysis.py**  *Displays Model Architecture.* |