

# uBooNE Reconstruction - Milestone #13399

## Parent reconstruction milestones/tasks for reconstruction necessary for MCC8 and reconstruction "v6"

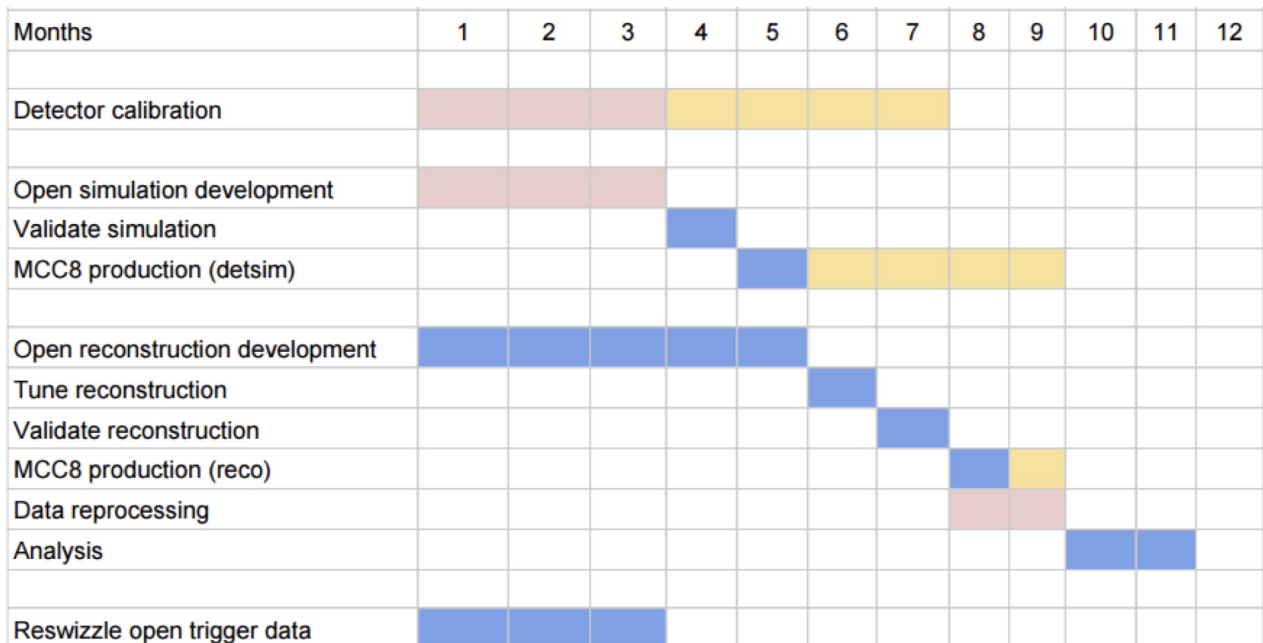
08/02/2016 02:03 PM - Tracy Usher

<b>Status:</b>	New	<b>Start date:</b>	08/01/2016
<b>Priority:</b>	Normal	<b>Due date:</b>	03/01/2017
<b>Assignee:</b>		<b>% Done:</b>	30%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			

### Description

This is the parent milestone for the second round of major improvements to the reconstruction. Note that the overall milestone is driven by the general timeline set out in the July MicroBooNE collaboration meeting, in particular slide 4 of the "Physics Plan" presentation (see this [link](#) for full presentation):

## Timeline for MCC8 & "v6" Analyses



Work on fixing issues  
(at least until next  
collaboration meeting)

MCC 8 production  
(6 months)

### Subtasks:

Milestone # 13400: MCC8 and "v6" reconstruction development	<b>New</b>
Milestone # 13403: Alternate Reconstruction Paths	<b>New</b>
Task # 13413: Integration of wire-cell into the LArSoft reconstruction chain	<b>New</b>
Task # 13415: Integration of linecluster/trajcluster into the LArSoft reconstruction chain	<b>New</b>
Task # 14204: Integration of Cluster3D into LArSoft reconstruction	<b>Work in progress</b>
Milestone # 13404: Optical Reconstruction	<b>New</b>
Task # 13418: Understand existing optical reconstruction in the Monte Carlo (MCC 7)	<b>New</b>
Task # 13419: Port LArLite based flash matching into LArSoft	<b>New</b>

Milestone # 13405: Shower Reconstruction	New
Task # 13420: Shower Reconstruction - Pandora tasks	New
Task # 13471: Track vs. shower classification	New
Task # 13472: Shower merging and characterisation	New
Task # 13473: Particle (esp. shower) merging	New
Task # 13421: LArLite/LArSoft merge of shower reconstruction elements	New
Task # 13425: Shower Reconstruction - OpenCV tasks	New
Task # 13633: Remove external shower-reconstruction dependency	Assigned
Task # 13634: Overlapping track removal	Assigned
Task # 13747: Pi0 Clustering	New
Task # 13635: Pi0 data sample reconstruction	Assigned
Task # 13636: sample identification [through hand-scanning]	Resolved
Task # 13637: sample re-processing with gaussian deconvolution filter	Resolved
Task # 13638: sample re-processing with updated hit-finder thresholds	New
Task # 13639: shower 3D start point reconstruction	New
Task # 13640: Energy reconstruction	New
Task # 13641: electronics gain calculation	New
Task # 14360: MC gain estimation and validation	New
Task # 14361: DATA gain validation	New
Task # 13643: lifetime correction	Resolved
Task # 13644: recombination correction	New
Task # 13645: dead-wire region impact on energy	New
Task # 13646: charge clustering impact on energy estimation	New
Task # 13647: containment of charge in TPC : study and corrections	New
Task # 13648: 3D shower direction reconstruction	New
Task # 13649: neutrino vertex resolution measurement /estimation	New
Task # 13650: shower dE/dx reconstruction	New
Task # 13651: Pi0 Mass Peak reconstruction	New
Task # 13652: detector energy calibration	New
Task # 13653: data-driven 3D direction & energy resolution calculation	New
Milestone # 13406: Vertex Reconstruction	New
Task # 13428: Vertex Reconstruction - Pandora tasks	New
Task # 13469: Creation and refinement of vertex candidates	New
Task # 13470: Scoring of vertex candidates	New
Milestone # 13407: Track Reconstruction	New
Task # 13427: Interface to new Track Fitter	New
Task # 13426: Track Reconstruction - Pandora tasks	New
Task # 13474: Missing tracks (fully-enclosed in gap in one view)	New
Task # 13475: Improved 3D SpacePoints	New
Milestone # 13408: Cosmic Ray tagging for use in reconstruction	New
Milestone # 13409: Cosmic Ray Tagger reconstruction	New
Milestone # 13410: Hit Finding	New
Task # 14341: Optimize existing hit finder parameters	New
Milestone # 13411: Reconstruction workflow	New
Milestone # 13412: Final Object Selection	New
Milestone # 13417: Common metrics for evaluation and validation	Assigned
Milestone # 13401: Reconstruction Tuning	New
Milestone # 13402: Reconstruction validation	New

## History

#1 - 08/02/2016 02:04 PM - Tracy Usher

- Due date changed from 01/01/2017 to 03/01/2017

**#2 - 08/03/2016 01:10 PM - Tracy Usher**

- File *MicroBooNETimeline16.jpg* added

**#3 - 08/03/2016 01:19 PM - Tracy Usher**

- Description updated

**Files**

---

MicroBooNETimeline16.jpg	363 KB	08/03/2016	Tracy Usher
--------------------------	--------	------------	-------------