

Pass 4 Readiness

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Reconstruction Updates

- These changes have occurred since the files were generated for scanning, but they do not have a large effect on tracking
- Errors on track and vertex parameters are being computed (and seem to make sense)
- VtxConFit does not drop tracks which can't be fit with templates and were supposed to be fit with TMinuit
- More JobCExceptions (tracking errors) are being handled
- Bugs fixed in RICHReco
- Code in CVS is not known to crash

DST Updates

- Trigger prescales added to MIPPRunSummary
- Added track fit status (TMinuit vs template)
- Added variable to tell whether track went through rear RICH window
- Revamped MC info
 - Most work went into rewriting MCTruth package
 - Added MC→reco particle connection (inverse existed)
 - Needs some thinking because MC DST's are x10 larger than data. I think we should get it down to x2-3 difference

Monte Carlo Updates

- Fixed a bug in make-db-schema script so that target/scint geometry table is readable by mipdbread in tagged releases
- Fixed a bug in storing RICH hits: twice as many geantinos were being stored
- RICHDigitizer updated
 - Still needs a tweak in efficiency which is somewhat strange
- ChamDigitizer updated
- bpMC_Job.xml created: digitization+reconstruction in one
 - To be used on the farm until digitizers are stable

DST Validation

- DSTAnalysis/Validator contains
 - valiDST: makes basic plots of detector and reconstruction performance from vtxconfit branch of the DST
 - Tracking, trigger summaries
 - TPC dE/dx vs momentum, RICH, calorimeter plots
 - Spill summaries
 - Nothing done on TOF and Ckov
 - valiMC: makes basic plots of Monte Carlo information where possible correlated to reconstruction info
 - Number of MC vs reco tracks
 - Track momentum resolution and bias
 - More to come

Plans for next release

- Submit pass 4 into production
 - Should take about 1 week
 - One file per subrun saved to Enstore
- Generate proton-carbon MC
 - e907ana7&8 will take about a week for what I need
 - MC reconstruction may have to be done with the next tagged release, as digitizers still need to be tuned