New Skimmer Tool

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1) the changes required for pruner and peeler.
2) refactoring plan : test, merge, generalize, extend.
3) current status : tested, merging & generalizing.
4) expected status at the end of the week
5) next steps

Customer Wishes 1/3

- Desired New Features
  - Handle SVAC, CAL, BeamTest ntuples for all pruning/peeling operations
  - Both (run,event) as well as TCut based selection across any combination of ntuples and trees
  - Output can be any combination of trees and/or tuples.
  - For merit tuples, (optionally) include the pointing history in the output
  - Output the GLAST FileHeader object in ROOT tree files, where appropriate

Customer Wishes 2/3

- Desired New Features
  - In general, allow for the possibility of including new ancillary data objects that may be added to the ROOT files in the future. The pointing history in Merit ntuples, and the FileHeader in the ROOT trees are examples of such ancillary objects.
  - Make system easily adaptable to new types of ROOT trees
  - Create a regression test (or something similar) to validate the code.

Customer Wishes 3/3

- Desired Simplifications
  - Merge Pruner and Peeler into a single Skimmer
  - Use new Data Catalog to determine the correct libraries for reading ROOT trees
  - Compile ROOT macros for increased performance

Refactoring Plan

- Create a regression test (or something similar) to validate the code.
  - I used Oval (http://oval.in2p3.fr)
- Merge Pruner and Peeler into a single Skimmer
  - Share common interface (SKIMMER variables)
  - Share common code.
  - Merge the two tools into a single one, where the pruner is an optional first step, deciding the (event/run) list for following peeler step ?
- Implement new features.

Current Status

- Test Suite Done
  - In a separate test subdirectory
  - Require the Oval tool (http://oval.in2p3.fr)
  - Not very satisfying for the peeler features, but enough for structure refactoring.
- Merge under work
  - SKIMMER variables introduced.
  - Common code factorizing under work

Expected end of the week

- Code fully factorized.
- Ability to extract simultaneously merit/mc/digi/recon data, based on Tcut on merit and branches selection.

What will certainly lack

- Generalization to other kinds of tuples, but should be easy.
- Upgrade of the WEB front-end
- Copy of ancillary objets
- Compilation of ROOT macros