

Hall A Analyzer - Feature #40

Feature # 76 (New): Code reorganization

Replace THa prefix with namespaces

05/17/2017 04:20 PM - Ole Hansen

Status:	In Progress	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	50%
Category:		Estimated time:	16.00 hours
Target version:	1.7	Spent time:	23.00 hours
Responsible:			
Description			
The archaic THa prefix to class names should be replaced with appropriate namespaces like Podd and HallA. The old names may still be made available to legacy code via typedefs.			

History

#1 - 05/19/2017 05:01 PM - Ole Hansen

- Start date deleted (10/17/2013)

#2 - 11/28/2017 12:42 PM - Ole Hansen

- Parent task set to #76

#3 - 04/19/2018 12:33 AM - Ole Hansen

- % Done changed from 0 to 30

Removed THa prefix. Renamed THa* files to files without that prefix. Changed code accordingly. Also, renamed all *.C (except scripts) to *.cxx for consistency with ROOT and hana.

Todo:

- wrap all classes in namespaces (Podd, HallA)
- create wrapper THa*.h headers for backward compatibility
- typedef old names for backward compatibility

#4 - 04/19/2018 11:20 PM - Ole Hansen

- Status changed from New to In Progress

- % Done changed from 30 to 50

Created wrapper THa*.h headers.

Typedefs do not work to alias the old names to the new because typedefs clash with class forward declarations. However, simply #define'ing old names to the new ones does work right out of the box. Put these #define's in src/CompatDefs.h and hana_decode/dcCompatDefs.h. The key is to have clients see *all* the #define's as early as possible so that function arguments and class forward declarations are substituted properly.

The main caveat is that "THa" names may appear in strings, for example in calls to TClass::InheritsFrom, TClonesArray constructors or RVarDef definitions (to indicate the class of objects inside a TClonesArray). Those calls will fail to recognize the referenced class, and such instances will have to be modified and compiled conditionally, if necessary.

Admittedly, this business is a bit of a kludge; client classes should simply be modified to replace all instances of "THa" with "Podd::" or "HallA::". We should write a translation script for that.

Namespaces are not consistently implemented yet; that's next.