

GammaLib - Change request #1102

Clean-up calibration database handling

01/24/2014 10:30 AM - Knödlseeder Jürgen

Status:	Closed	Start date:	01/24/2014
Priority:	Normal	Due date:	
Assigned To:	Knödlseeder Jürgen	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	00-09-00		
Description			
<p>Currently the calibration database handling is not very clean.</p> <p>GammaLib defines a GAMMALIB_CALDB environment variable that is setup by the GammaLib configuration script. ctools defines a CALDB environment variable that is setup by the ctools configuration script. The GammaLib GCaldb class handles GAMMALIB_CALDB and CALDB and gives precedence for GAMMALIB_CALDB over CALDB.</p> <p>ctools should however not use CALDB, as this may result in conflicts with the Fermi ScienceTools.</p> <p>ctools could define an own calibration database environment variable CTOOLS_CALDB, but then some specific code needs to be added to GammaLib to catch this. This isn't very clean.</p> <p>Alternatively, ctools could use the GAMMALIB_CALDB environment variable, yet there may be situations where ctools cannot install into the directory (for example when GammaLib was installed by an administrator, but ctools is installed by a user).</p> <p>Maybe at the end we're left with having only a single CALDB environment variable (an no GAMMALIB_CALDB anymore), as this is the standard anyways. The conflict with the Fermi ScienceTools arises when Fermi response functions are needed but not available in the CALDB directory. Once we package the relevant response functions with GammaLib, this should no longer be a serious problem.</p> <p>Another issue is that the caldb path is not set properly so far. Actually, the expected structure</p> <pre>\$CALDB/data/<mission> \$CALDB/data/<mission>/<instrument> \$GAMMALIB_CALDB/data/<mission> \$GAMMALIB_CALDB/data/<mission>/<instrument></pre> <p>is not really used (the data directory is actually missing), and the responses classes do not use the appropriate GCaldb::path() method to access the data. This should be made compatible.</p>			
Related issues:			
Related to GammaLib - Bug # 1094: make check from gammalib-00-08-00 has one f...		Closed	01/21/2014

History

#1 - 01/30/2014 02:16 AM - Knödlseeder Jürgen

- Status changed from New to In Progress
- Assigned To set to Knödlseeder Jürgen
- Target version set to 2nd coding sprint
- % Done changed from 0 to 10

A method needs to be added that returns the full path to a calibration file using the following selection parameters

- CAL_CLAS
- CAL_DTYP
- CAL_CNAM
- CAL_CDB
(additional flags may be added later).

For CAL_CLAS, CAL_DTYP and CAL_CNAM, we may just check whether the strings are identical (checks are only done if the selection strings are

non-empty).

For CAL_CDB, we could test for identity in one of the fields. I guess that in reality, some complex syntax applies.

#2 - 01/31/2014 01:29 AM - Knödseder Jürgen

- % Done changed from 10 to 80

The GCaldb class now makes use of the calibration index file. Response file selection is now based on the index file, allowing the use of 2D response functions in the ctools. A dummy 2D response has been added to GammaLib for testing.

#3 - 07/19/2014 02:12 AM - Knödseder Jürgen

- Status changed from *In Progress* to *Resolved*

- Target version changed from *2nd coding sprint* to *00-09-00*

- % Done changed from 80 to 100

For me this look like finished.

#4 - 07/20/2014 11:25 PM - Knödseder Jürgen

- Status changed from *Resolved* to *Closed*