GammaLib - Feature #907

Implement ON and OFF data storage

06/23/2013 03:14 PM - Martin Pierrick

Status:	Closed	**Start date:**	06/23/2013
Priority:	Normal	**Due date:**	
Assigned To:		**% Done:**	40%
Category:		**Estimated time:**	0.00 hour
Target version:	HESS sprint #1		

Description

The context of this task is the extension of the gammalib to allow the analysis of data from Cherenkov telescopes in a way currently adopted by the HESS/VERITAS/MAGIC collaborations: the ON and OFF technique, which can be used in different ways. As a first step, we focus on the spectral analysis of a source observed in wobble mode, with the reflected region background evaluation method (see Berge et al. 2007).

As part of this effort, a code structure was proposed in which low-level ON and OFF data (such as counts, acceptance, exposure time) would be stored in a specific object. A typical analysis would call a background maker which would then produce an array of such ON and OFF data objects, typically one per run and energy bin. The idea is to avoid code duplication when implementing different kinds of analyses (spectral, morphological,...), since an array of ON and OFF data objects can be used to produce spectra or maps or cubes. It remains to be seen if this is really the best strategy.

A draft header for this GOnOffBin object is provided. It is very likely perfectible and the immediate objective is to refine the interface and fill in their functionalities during the coding sprint to be held in Toulouse on 24-28 June 2013.

The philosophy is explained in the comment section of each class header, which also contains a list of points to be clarified/discussed.

Subtasks:

Action # 926: Implement GCTAOnOffSpectrum	**Rejected**
Action # 915: Implement GOnOffBin unit test	**Rejected**
Action # 908: Implement GOnOffBin class	**Rejected**
Action # 928: Implement GCTAOnOffObservation class	**Closed**
Action # 929: Implement GCTAOnOffObservations class	**Closed**

History

#1 - 11/03/2013 02:08 AM - Knödlseder Jürgen

- Status changed from New to Closed

Files

GOnOffBin.hpp	5.16 KB	06/23/2013	Martin Pierrick