

GammaLib - Action #499

Feature # 490 (Closed): Avoid casts for derived classes

Rework GModel interface

09/19/2012 08:57 PM - Knödseder Jürgen

Status:	Closed	Start date:	09/20/2012
Priority:	Normal	Due date:	
Assigned To:	Knödseder Jürgen	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	00-07-00		
Description			
Here a list of methods in derived classes of GModel:			
GModelData: None			
GCTAModelRadialAcceptance:			
<ul style="list-style-type: none">• virtual GCTAEventList* mc(const GObservation& obs, GRan& ran) const;• GCTAModelRadial* radial(void) const;• GModelSpectral* spectral(void) const;• GModelTemporal* temporal(void) const;			
Note: radial() should be renamed to spatial() for conformance with GModelSky.			
GModelSky:			
<ul style="list-style-type: none">• GModelSpatial* spatial(void) const;• GModelSpectral* spectral(void) const;• GModelTemporal* temporal(void) const;• double value(const GSkyDir& srcDir, const GEnergy& srcEng, const GTime& srcTime);• GVector gradients(const GSkyDir& srcDir, const GEnergy& srcEng, const GTime& srcTime);• GPhotons mc(const double& area, const GSkyDir& dir, const double& radius, const GEnergy& emin, const GEnergy& emax, const GTime& tmin, const GTime& tmax, GRan& ran) const;			
Note: the spatial(), spectral() and temporal() methods could be exposed to the @GModel base class. The mc(), value() and gradients() methods are more specific as their arguments would be different for sky and data models.			
GModelDiffuseSource: None			
GModelExtendedSource:			
<ul style="list-style-type: none">• GModelRadial* radial(void) const;• GSkyDir dir(void) const;			
Notes:			
<ul style="list-style-type: none">• the dir() method should be removed as it is implement in the radial model. Instead of calling dir() one should call spatial().dir().• the radial() method should also be removed as it is a simple cast to the spatial() method.			
GModelPointSource:			
<ul style="list-style-type: none">• GSkyDir dir(void) const;			

History

#1 - 09/19/2012 09:51 PM - Knödseder Jürgen

- Description updated

#2 - 09/20/2012 05:21 PM - Knödseder Jürgen

- *Start date set to 09/20/2012*

due to changes in a related task

#3 - 09/20/2012 05:53 PM - Knödseder Jürgen

- *Status changed from New to Feedback*

- *Assigned To set to Knödseder Jürgen*

- *% Done changed from 0 to 100*

- *Remaining (hours) set to 0.0*

The interface has not been reworked. Instead, output typemaps have been implemented that perform typecasting at the access level.

#4 - 12/04/2012 10:45 PM - Knödseder Jürgen

- *Status changed from Feedback to Closed*

- *Estimated time set to 0.00*