

GammaLib - Action #499

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

Rework GModel interface

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

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

History

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

- Description updated

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

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

due to changes in a related task

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

- *Status changed from New to Feedback*

- *Assigned To set to Knödlseider 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 - Knödlseider Jürgen**

- *Status changed from Feedback to Closed*

- *Estimated time set to 0.00*