MiscSphericalCoord

Inherits From: MiscMathCoord : MiscCoord : Object

Declared In: misckit/miscgiskit/MiscSphericalCoord.h

Class Description

A MiscSphericalCoord object holds a set of spherical coordinate points, ie phi (angle from pole in positive z direction towards equator), theta (equatorial angle from zero meridian at x axis towards y axis), and rho (sphere radius) values. Phi and theta are stored internally as radians at all times, but may be loaded or retrieved in degrees if desired.

Method Types

Accessing Coord values
- setCoordPhiDegrees: thetaDegrees:rho:
- setCoordPhiRadians thetaRadians:rho:
- coordPhiDegrees: thetaDegrees: rho:
- coordPhiRadians: thetaRadians: rho:

- phiRadians;
- phiDegrees;
- thetaRadians;
- thetaDegrees;
- rho

Instance Methods

coordPhiDegrees: thetaDegrees:rho:
- **coordPhiDegrees:**(double*)*phiValue* **thetaDegrees:**(double*)*thetaValue* **rho:**(double*)*rValue*

Get the ϕ (in decimal degrees), θ (in decimal degrees) and rho values of the point at the current index. Returns **self**.

See also: - **coordPhiRadians thetaRadians:rho:**

coordPhiRadians thetaRadians:rho:
- **coordPhiRadians:**(double*)*phiValue* **thetaRadians:**(double*)*thetaValue* **rho:**(double*)*rValue*

Get the ϕ (in radians), θ (in radians) and rho values of the point at the current index. Returns **self**.

See also: - **coordPhiDegrees: thetaDegrees:rho:**

phiDegrees
- (double)**phiDegrees**

Returns the ϕ value (in decimal degrees) of the point at the current index.

See also: - **rho**, - **phiRadians**, - **thetaDegrees**, - **thetaRadians**

phiRadians

- (double)**phiRadians**

Returns the ϕ value (in readians) of the point at the current index.

See also: - **rho**, - **phiDegrees**, - **thetaDegrees**, - **thetaRadians**

rho

- (double)**rho**

Returns rho, the radius value of the point at the current index.

See also: - **phiDegrees**, - **phiRadians**, - **thetaDegrees**, - **thetaRadians**

setCoordPhiDegrees: thetaDegrees:rho:

- **setCoordPhiDegrees:**(double)*phiValue* **thetaDegrees:**(double)*thetaValue* **rho:**(double)*rValue*

Sets the ϕ (in decimal degrees), θ (in decimal degrees) and rho values of the point at the current index.

See also: -**setCoordPhiRadians thetaRadians:rho:**

setCoordPhiRadians thetaRadians:rho:

- **setCoordPhiRadians:**(double)*phiValue* **thetaRadians:**(double)*thetaValue* **r:**(double)*rValue*

Sets the ϕ (in radians), θ (in radians) and rho values of the point at the current index.

See also: - **setCoordPhiDegrees: thetaDegrees:rho:**

thetaDegrees

- (double)**thetaDegrees**

Returns the θ value (in decimal degrees) of the point at the current index.

See also: - **rho**, - **phiDegrees**, - **phiRadians**, - **thetaRadians**

thetaRadians

- (double)**thetaRadians**

Returns the θ value (in readians) of the point at the current index.

See also: - **rho**, - **phiDegrees**, - **phiRadians**, - **thetaDegrees**