

# MiscUKUTMCoord

**Inherits From:** MiscUTMCoord : MiscCoord : Object  
**Declared In:** misckit/miscgiskit/MiscUKUTMCoord.h

## Class Description

A MiscUKUTMCoord object contains points in the UK National Grid Universal Transverse Mercator Projection described in the UK Ordnance Survey document, Transverse Mercator Projection, Constants, Formula and Methods", March 1983. All distances are in meters.

MiscUKUTMCoords use an MiscPlanetCoordConverter object as the default converter for **convert:to:** operations (See MiscCoord). This related class is invisible to the user and handles conversion between the basic types discussed above.

The first time a MiscUKUTMCoord is created, a single instance of a MiscUTMConstants object is created with values particular to this grid.

World coordinate of True Origin:	Latitude 49.0 N, Longitude 2.0 W
True origin offset from grid origin:	400000.0 meters East , -100000.0 meters North
Airy sphere:	a=6377563.396 meters, b=6356256.910 meters
Scaling at Central Meridian:	0.9996012717

This invisible constants object is shared by all future instances of `MiscUKUTMCoord` that are created and is protected against deletion.

## Method Types

Initialization

- `initDescription`:
- `awake`

## Instance Methods

**`awake`**

- `awake`

Connect to the private local constants object to the unarchived object and free the unarchived constants. You should never invoke this method directly. Returns **`self`**.

**`initDescription`:**

- **`initDescription:(char*)textString`**

Designated initializer for the `MiscUKUTMCoord` class. *textString* is copied and may be used in describing the set

of points. The new object will initially have space for one point. The default conversion contractor for conversion between coordinate systems is set to be the instance of MiscPlanetCoordConverter.