

## Encom ModelVision v10.0

Encom ModelVision v10.0 is a practical improvement to the already powerful modelling application of previous versions. In this release ModelVision focuses on making it easier to work with cross-sections and 2D map views while modelling or preparing map layouts. Some new utilities also provide an easier method for data correction and examining the inversion process.

Features available in this release of Encom ModelVision are:

### **TERRAIN CORRECTION CALCULATOR**

The Terrain Correction Calculator utility significantly reduces the amount of calculation time needed to perform the necessary correction for the effect of the terrain when modelling gravity data. In previous versions of ModelVision the terrain correction was performed by calculating the forward model of the terrain using constant density of a General Polyhedron body type with constant mesh size. This is still available but the new terrain calculator significantly reduces calculation time by using successively larger grids at greater distances from the measurement point. Up to three grids can be used. This improves the calculation time by factors of up to 1000, particularly for large gradient surveys while still retaining maximum resolution for close effects.

### **NEW MOVIE MODE**

The Movie Mode is a new utility in version 10.0, which allows the user to capture changes to a model made during inversion and then replay the changes as a movie.

### **CROSS-SECTION LAYER TABLE**

In previous versions of ModelVision the configuration of cross-section windows were managed through the X-Section Configuration dialog. In version 10.0 this configuration dialog has been replaced by a Layer Table, similar to the Body Table utility, and provides immediate access to each data object type for the control of visibility and design.

## **MAP LAYER TABLE**

In previous versions of ModelVision the configuration of map windows were managed through the Map Configuration dialog. In version 10.0 this configuration dialog has been replaced by a Layer Table, and provides immediate access to each data object type for the control of visibility and design.

## **REMANENCE MAGNETISATION VECTOR CALCULATOR**

When working with remanently magnetised bodies the new release of ModelVision now has the Body Properties dialog expanded to be able to use this dialog as a magnetisation vector calculator. This complements the existing MAGVIS vector display utility to produce a real time graphic display of magnetisation vectors.

## **BODY PROPERTIES**

When modelling with polygonal body shapes the latest version of ModelVision now has the ability to re-centre a set of common reference positions for a group of bodies. The precision for body properties has also been standardised for all dialogs and model files.

## **AutoMag Module**

The AutoMag optional module for ModelVision enables rapid magnetic depth-to-basement source estimation and fast processing of large surveys. The module is based on a refined version of the Naudy dipping tabular body inversion method which provides quality geological information for depth, magnetic susceptibility, thickness and dip. In ModelVision v10.0 the main AutoMag toolbar has been resized to improve appearance and productivity. The AutoMag module is now accessed from the new Modules menu, introduced in version 10.0.

## **UBC Model-Mesh Designer Module**

The UBC Model-Mesh Designer optional module for ModelVision makes it easy to prepare and run UBC-GIF GRAV3D and MAG3D smooth inversions. The solid models in ModelVision are converted to mesh models by assigning density or susceptibility properties to each mesh cell that falls inside a body. In ModelVision v10.0 the module has been updated to ensure that outputs are support by the most recent versions of the UBC inversion programs. Now too when exporting the magnetic property to a UBC mesh model the Bounds control has been enabled so that a Bounds.sus file is written. The UBC Model-Mesh Designer module is now accessed from the Modules menu in the main menu.