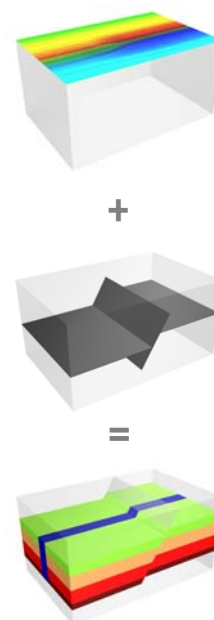
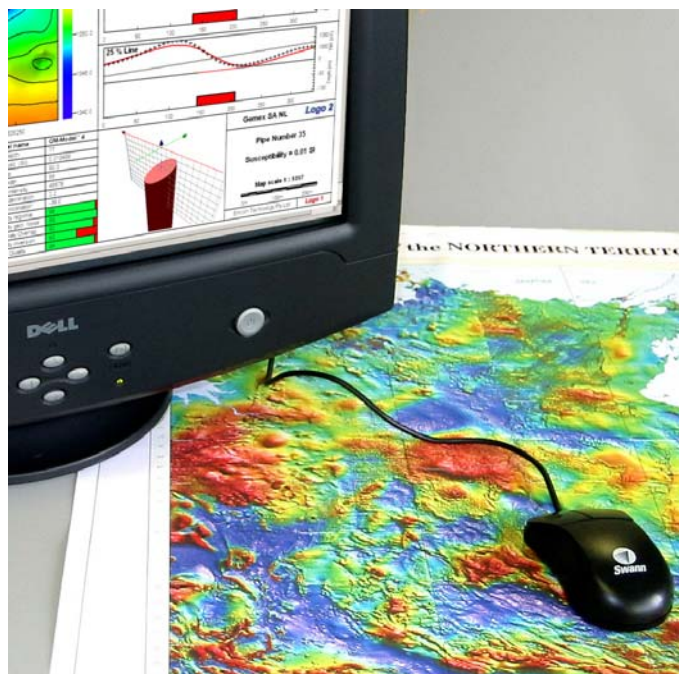




Encom QuickMag 2.0

Expert Magnetic Modelling System



3D Magnetic Interpretation in 3 easy steps

Encom QuickMag is the revolutionary new magnetic modelling package from Encom Technology. Based on three years of expert systems research, Encom QuickMag creates realistic 3D magnetic models, in less time and with less effort than ever before.

Fast, realistic geological modelling

Encom QuickMag allows you to construct realistic geological models of magnetic anomalies in a fraction of the time of manual methods.

Just point at an anomaly, choose a geological style and in seconds Encom QuickMag will automatically construct a 3D model of the magnetic source.

On a standard desktop computer, Encom QuickMag will build a realistic 3D geological model in less than 5 seconds, and a full inversion in less than 60 seconds.

Because Encom QuickMag removes much of the laborious work required to manually build complex 3D models, you can tackle interpretations that you once regarded as impractical, in a systematic and time-effective manner.

Unique processing technology

Encom QuickMag is based on three years of government-backed research by Encom into methods for automatically constructing realistic 3D geological models from magnetic surveys.

Encom QuickMag is the first commercial product to be developed from this research. At its core is the unique Quick Match process, which isolates an anomaly from its surroundings to instantly produce realistic starting models with quality depth estimates.

You can improve on the Quick Match results by experimenting with different geological shapes to obtain the best match between magnetic data and the interpreted geological style. Because it is easy to change the geological style, you can test a wide range of models and develop a good understanding of the model uncertainties.

Control and compatibility

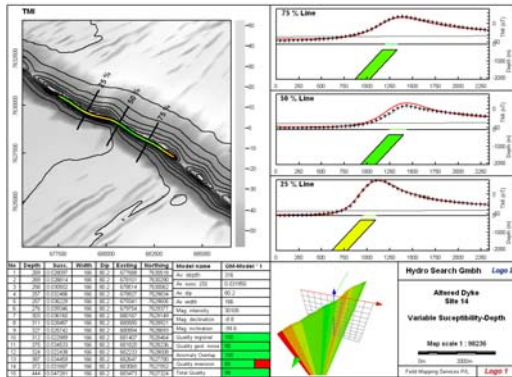
With Encom QuickMag, you can fully control the characteristics of your geological model. The style selector lets you control the mapped shape, depth profile, magnetic susceptibility, faulting and dip of your chosen geological style.

Encom QuickMag reports provide detailed cross-checks of the interpretation quality and the profile cross-sections let you evaluate any residual mismatch between the original data and computed model response.

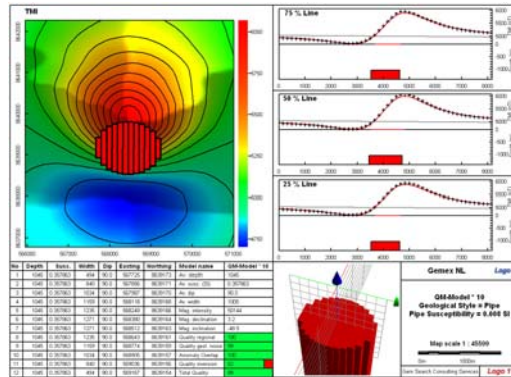
You can select from a range of report template styles and customise them to suit your individual needs.

Encom QuickMag comes with plug-ins for Geosoft Oasis montaj™ and Encom ModelVision. Encom QuickMag pages can also be copied into Microsoft Word and other Windows applications.

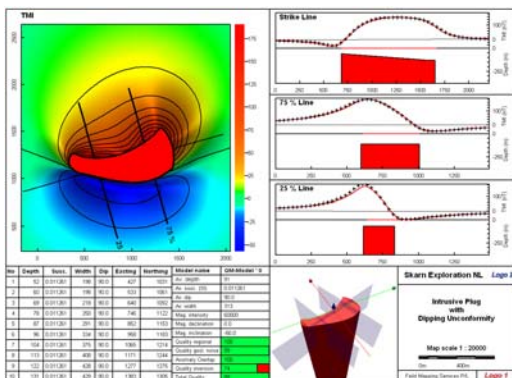
Fast, realistic geological modelling



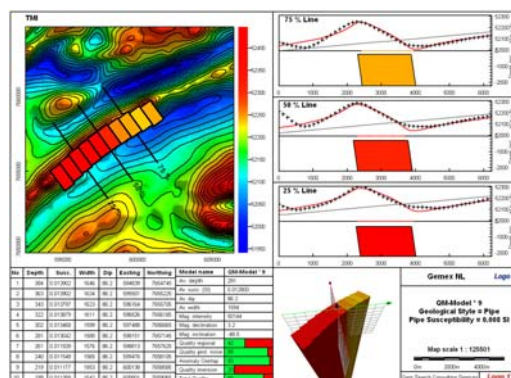
Dyke interpretation



Intrusive plug



Dipping unconformity

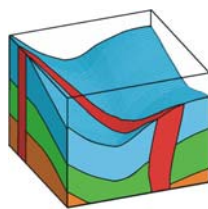


Folded volcanics

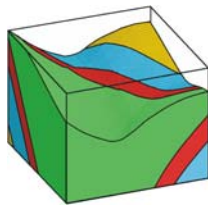
How it works

Encom QuickMag is based on ground-breaking new research into automatic geological modelling techniques. Encom QuickMag is suitable for mapping of magnetic dykes, steeply dipping folded volcanics, intrusive pipes and intrusive plugs. It maps the distribution of magnetic material across an unconformity surface.

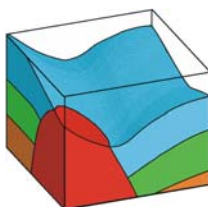
This model style suits a wide range of geological mapping problems and the unconformity can be flat, dipping, undulating or faulted. The adoption of this geological model makes it possible to automate the 3D construction of the magnetic unit below the unconformity.



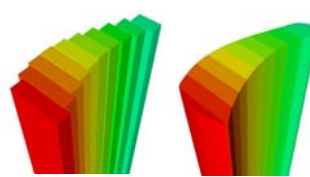
Dyke



Folded volcanics



Intrusive plug



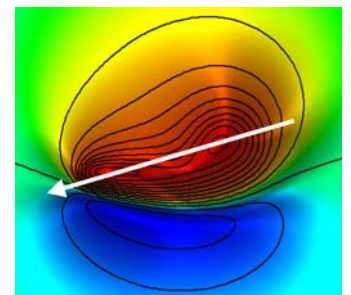
Blocked and smooth visualization styles for QuickMag models

The magnetic unit is approximated by a series of linked blocks where the depth, width, dip and magnetic property can vary from one block to the next. The linked attributes must conform to the selected geological style and this allows Encom QuickMag to define a wide range of geological shapes.

This process and the Quick Match technology provide faster and more precise results in a wide range of geological circumstances than other automated modelling systems.

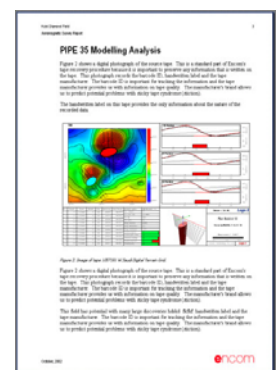
Speed and control

Encom QuickMag optimises your time because it allows you to perform the model interpretation directly from the image view of your data. This is the natural way to work with magnetic data.



Example of magnetic anomaly selection

First you select the geological style and then you select the anomaly by dragging the mouse along the approximate axis of the magnetic anomaly. QuickMag does the rest in a few seconds by building a model that best matches your style selection and the magnetic data. If the match is poor, you can change the style to see if you can improve the result. Now you can build complex geological models without having to worry about the details of manual model construction.



QuickMag makes reporting easy. Simply use the Edit menu to copy the report page to the clipboard and then paste it directly into your report.

Reports

Each element of the QuickMag report is an active object that delivers dynamic information on the results of your interpretation. With these advanced reporting features you can create high quality presentations from a selection of templates. The report templates can also be customised for individual needs.

Image maps

The image map style, contours, illumination direction, model attributes, titles and anomaly selection are fully controlled from a pop-up menu. Pan and zoom to any part of the map using dynamic colour stretching.

Pan and Zoom tools

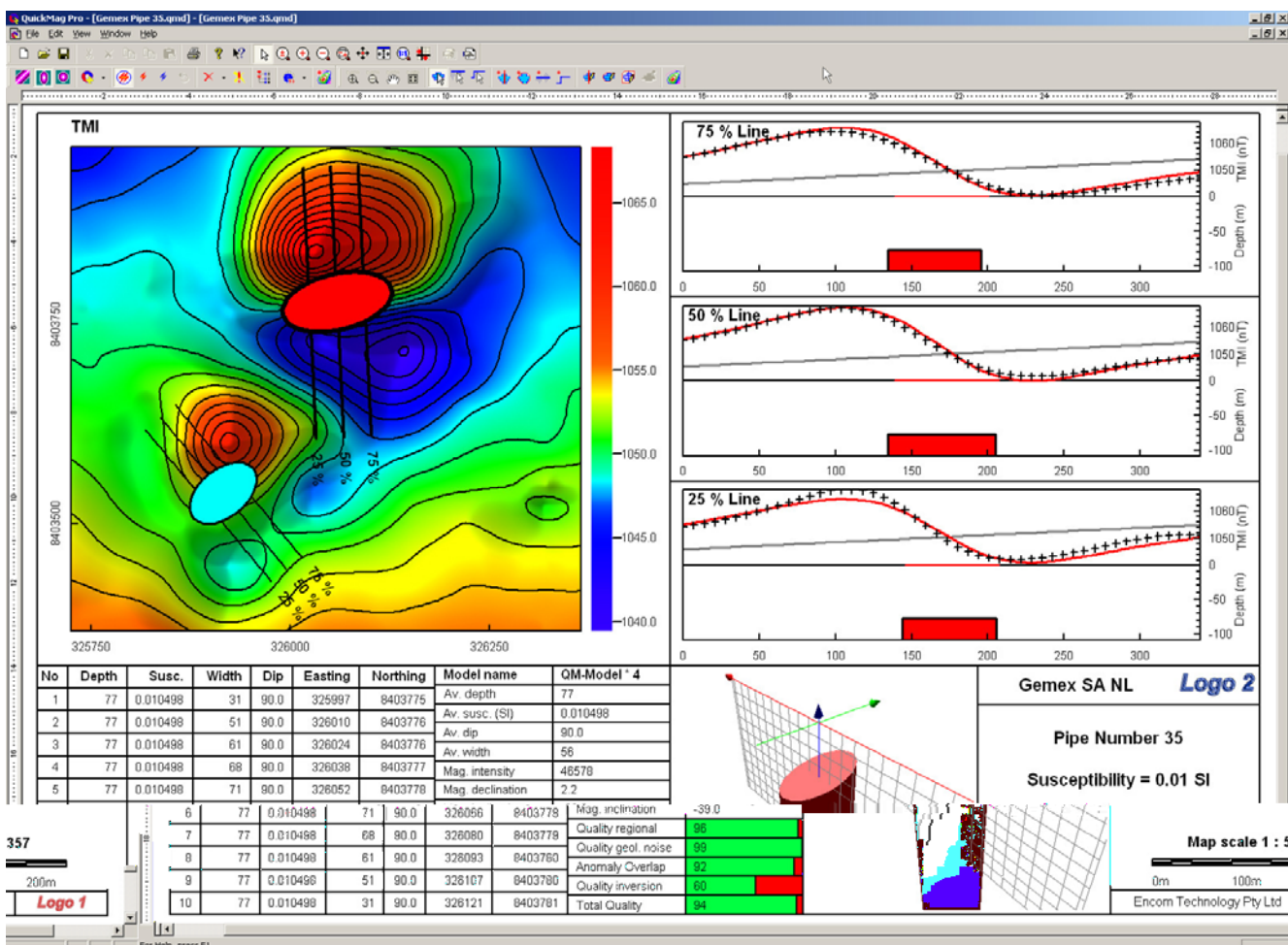
QuickMag uses data and page navigation tools. The data zoom and pan allows you to position your map view over a magnetic anomaly while the page zoom allows you to view your printed page at high resolution.

Control panel

QuickMag provides a comprehensive control panel to define the geological style in terms of depth, susceptibility width, position and dip shapes. You can insert known values such as susceptibility and clamp parameters during inversion.

Cross-section

Cross-sections help you to evaluate the results of the interpretation, by providing visual feedback on data mismatches. Turn on the first vertical derivative option to improve depth sensitivity. The regional is updated automatically.



Block model spreadsheet

The primary attributes of each block in the model are summarized in the block model spreadsheet. Spreadsheet columns can include depth, width, dip, position and other attributes.

Quality report

The quality report provides quantitative estimates of the quality of factors that influence the geological model interpretation such as regional, shallow geological noise, anomaly overlap and inversion RMS match.

3D model display

Interactive 3D displays provide a useful presentation of complex models that may not be easily visualized in a map or limited number of cross-sections. Optional display of 3D axes and cross-section locations.

Title Blocks

You can modify the standard templates to include your own details and logos and re-use the templates at a later time. Use the active scalebar object to enter a precise scale. You have full control over font selection and style.

Features and specifications

Major features

- Simplicity for 3D modelling
- Builds 3D models in seconds
- Wide range of geological model styles
- Operates from image maps
- Quality classification of models
- Easy, high-quality reports
- Works with other products
- Low inclination magnetic field capability
- High quality multi-layer image maps
- Interactive control of active data zone
- Edit your own templates

Applications

- Base metal exploration
- Gold exploration
- Diamond exploration
- Petroleum exploration basement mapping
- Petroleum exploration intrusion assessment
- Regional mapping
- Coal mining hazard assessment
- Engineering geophysics
- Environmental geophysics
- Unexploded ordinance

Model Styles

- Intrusions
 - > elliptical pipes and plugs
- Dykes
- Folded volcanics
- Variable width dykes and volcanics
- Unconformity
 - > flat, sloping, undulating
- Vertical faults
- Lateral faults

- Uniform, folded and faulted dip

Reports

- Selection of report styles
- A4 and US Letter paper sizes
- Components
 - > Image with colour selection
 - > Contour overlay
 - > Cross-sections
 - > Block summary spreadsheet
 - > Model summary spreadsheet
 - > Quality summary spreadsheet
 - > 3D perspective view
 - > Title block
 - > Scale bar
 - > User logs
- Copy to clipboard
 - > BMP
 - > MS Windows metafile
 - > MS Windows enhanced metafile
- Print preview
- Additional report styles on request

Inputs

- Grid of magnetic data
 - > Geosoft uncompressed (grd)
 - > ER Mapper (ers)
 - > ASEG-GXF (gxf)
 - > USGS (usg)
 - > Surfer binary (grd)
 - > Encom (grd)
 - > Geopak (grd)
- TMI or RTP grids
- Magnetic field specification
- DTM reference surface
- Geotiff reference image
- ER Mapper algorithms

Outputs

- Printed colour reports
- Multi-model project database
- Work session files
- Encom ModelVision models (TKM, DXF)
- ASCII model summary
- MS Windows bitmaps and metafiles

Plug-ins

- Geosoft Oasis montaj™
- Encom ModelVision Pro

Product compatibility

- Encom ModelVision Pro (advanced modelling)
- Geosoft Oasis montaj™ (plug-in and models)
- Encom Profile Analyst (3D models)
- Encom Discover for MapInfo (3D models)

Media

- Comprehensive User Guide
- CD media
- Training tutorials
- On-line help with search
- Electronic version of User Guide

Minimum system requirements

- Pentium III processor
- Microsoft Windows 98®, 2000®, XP®
- 128 Mb RAM
- 20 Mb available disk space
- CD-ROM drive

For more information

For more information about Encom QuickMag 2.0, visit our website at www.encom.com.au, or talk to Encom to arrange a demonstration or request an evaluation copy of the software. To contact an authorised reseller in your region, visit www.encom.com.au/resellers

Encom QuickMag is one of a suite of specialist geophysical and GIS software tools from Encom Technology. For information about Encom Profile Analyst, Encom ModelVision, EM Flow, EM Vision, Encom Discover for MapInfo, GPinfo and other products, contact Encom.

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