



# Mira Geoscience

...modelling the earth

GOCAD® Mining Suite

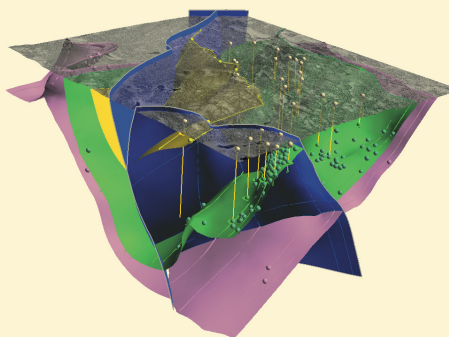
## Paradigm™ SKUA – Implicit Modelling Engine

Earth modelling and 3D-GIS solutions for mineral exploration

### Summary

SKUA is Paradigm GOCAD's implicit modelling engine. It provides fast, intuitive and accurate 3D geological modelling tools that obey stratigraphic rules to generate structural models of all levels of complexity. Its workflow environment is fast, allowing users of all levels to model faster and more accurately.

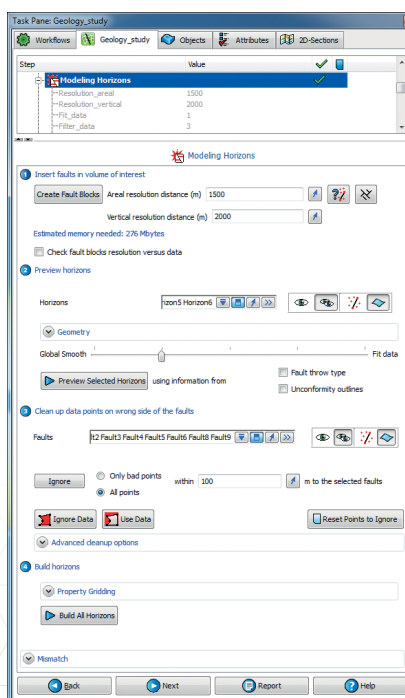
GOCAD Mining Suite is an extension of Paradigm GOCAD, the world's most sophisticated geological modelling platform, adapted specifically for the mining industry with mining modules available exclusively from Mira Geoscience.



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### SKUA is an efficient implicit geological modelling engine focusing on the data interpretation and complying with stratigraphic rules

- » Allows the creation of accurate and realistic geological models
- » Accelerates modelling with its automated workflow while tracking all changes made to the model
- » Guides novice to advanced users through complex modelling tasks with its straightforward workflow environment
- » Facilitates the investigation of alternative scenarios
- » Allows the integration of a wide range of constraints, drillhole data and other geologic information
- » Obeys stratigraphic rules with no crossovers in geological models while honouring drillhole intersections
- » Onlap, baselap and eroded contacts are supported as well as conformable units
- » Improves model quality and accuracy while reducing cycle time with UVT Transform technology
- » Integrates with all GOCAD Mining Suite Modules



## Key Features

### Workflow environment

- » Guides the user through complex modelling tasks
- » Asks the right modelling questions
- » Aids both novice and advanced users
- » Report generation ensures documentation and repeatability

### Stratigraphic rules

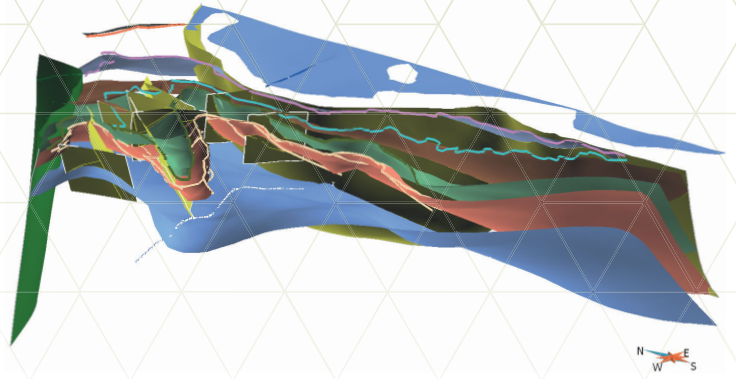
- » Sequential stratigraphic and eroded units
- » Applied to drillholes to explain presence/absence of unit markers
- » Ensures no crossing of units if required

### Data input

- » PointsSets – drillhole pierce points, 3D seismic interpretations
- » Curves – map traces, section interpretations
- » Surfaces – Sparse surfaces, fault networks
- » 2D Grids – Seismic interpretations
- » Drillholes and markers
- » Dip/azimuth information

### Fault network modelling

- » Rapid construction and editing
- » Extend along strike or down dip
- » Watertight network
- » Quick updates
- » Automatic identification of fault contacts and manual editing
- » Crossing, branching, partial branching
- » Normal or reverse faults



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### Faulted horizon construction

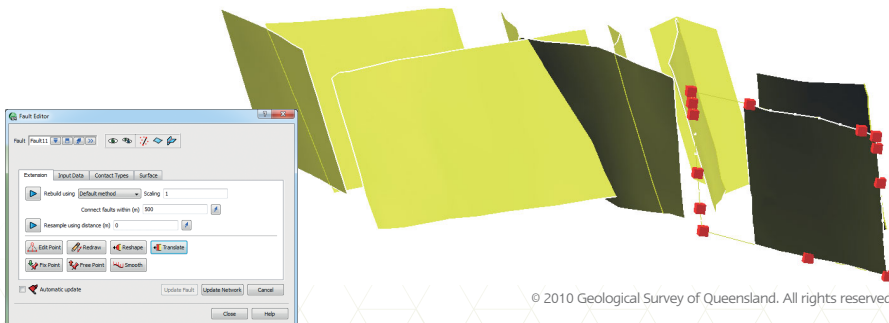
- » Always watertight
- » Obeys stratigraphic column rules
- » Constructs complex geometries
- » Constrained by drillhole paths
- » Honours drillhole marker information

### Fully integrated

- » Access all Mining Suite tools
- » 3D geologically consistent maps
- » Fault displacement maps
- » Thickness maps
- » Deformation of layers, stress and strain
- » Fracture modelling
- » Geological grids
- » Property modelling (syn- and post-depositional)

### SKUA specific object types

- » Fault Networks
- » Horizon Grids
- » Can be converted to standard GOCAD surfaces



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