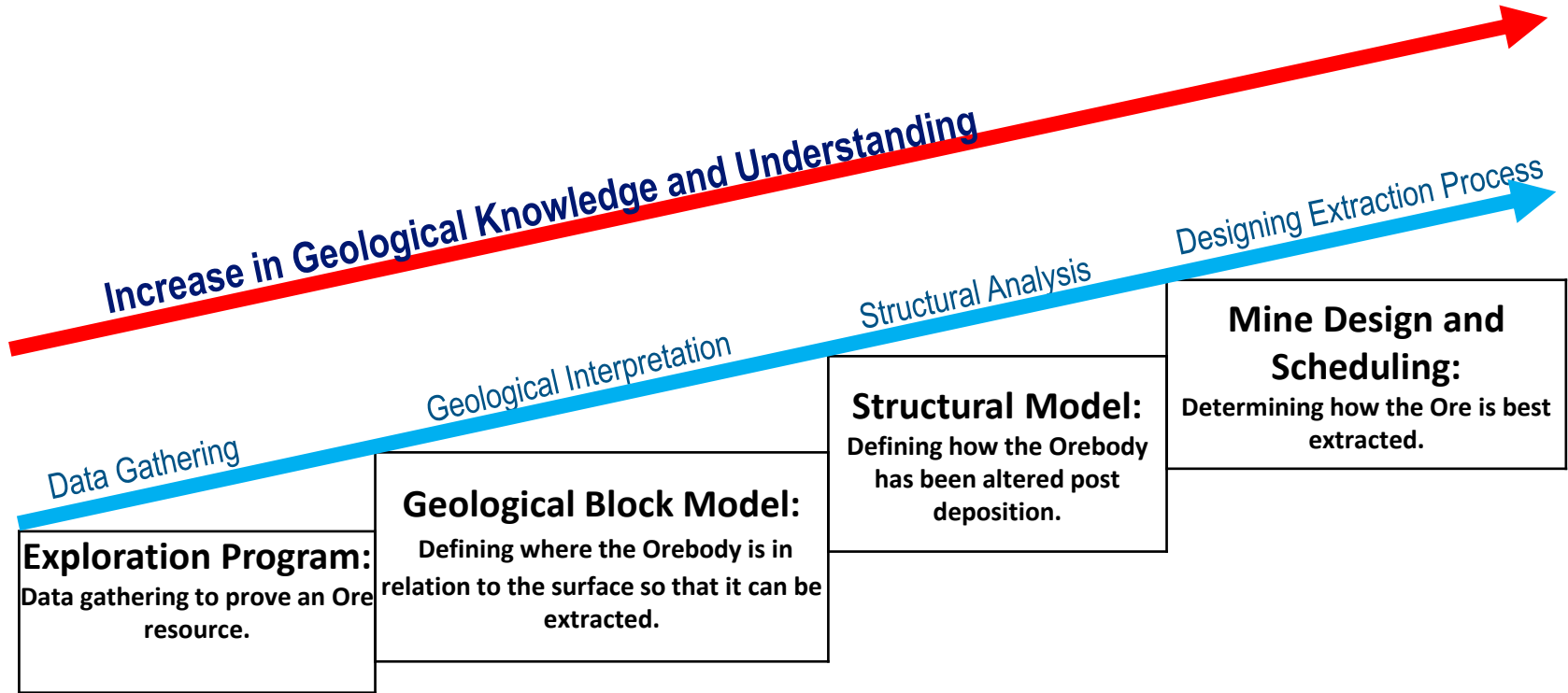




GEOVIA Surpac Structural Suite

Using Orientated Data in your Geological Modelling Workflow

Geological Modelling Workflow



Benefits of Structural Modelling

- What is it :
 - Identification of zones of:
 - Weakness
 - Overall strength
 - Stability
 - Variation of mineralisation
- Benefits:
 - Protects your assets - loss of life, loss of equipment.
 - Protects your bottom line –sterilisation of ore, downtime.
 - Increases efficiency of mining – identify mineralisation zones; defines best method of extraction.

Visualising Data

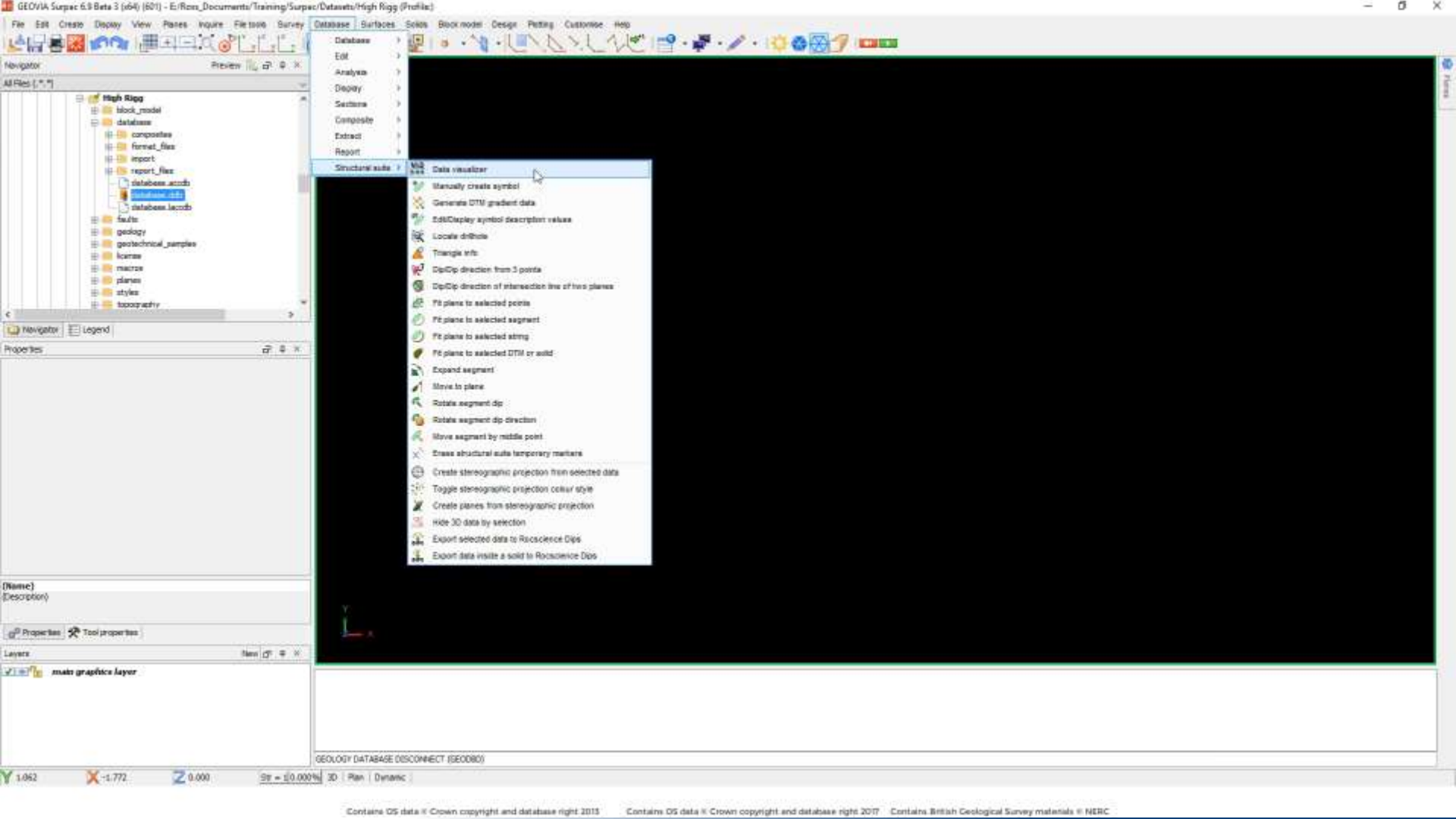
- Visual representation of the structural features identified in exploration:
 - Sources - downhole data (point data) and outcrop data (discrete data)
 - Types – faults, joints, cleavage, dykes
 - Information required:
 - Point Data – hole id, depth to, dip, dip-direction, strike
 - Discrete Data – sample id, co-ordinates, dip-direction, strike
- Data Visualizer displays this data from the database and is an analysis tool for any kind of orientated data. Enables you to:
 - include orientation data to geological modelling workflow, using contact orientations and foliation.
 - structurally model in Surpac using all available data, such as joint orientations from core logging or televiewer data and mapped structure data

Stereographic Projections

- Stereographic Projections from polygon in Structural Data
- Best Fit planes from polygon in Stereonet (ID samples above/below topography)
- Creation of Intersection of Two Planes – Major weakness

Data Analysis

- Generate a DTM gradient data
- Dip direction from 3 points
- Fit plane to 3 points
- Fit plane to selected DTM or solid
- Fit plane to segment/string



GEOLOGY DATABASE (DISCONNECT) (SECD80)

1.062 -1.772 0.000 Sp = 10.000% 3D | Plan | Dynamic

• Questions or beer?