



- ◆ Mining and environmental applications
- ◆ Unlimited number of control data and grid cells
- ◆ Interactive 3D variogram modeling
- ◆ OK,SK,LK,MIK kriging flavors
- ◆ Conditional simulation

Features

- ◆ Input ASCII file of control points/samples/composites with coordinates and up to 25 values (grade, thickness, elevation ...). Composites can be generated from drill hole data with the **COMPOS** application included in **GEOSTAT**. Input ASCII file is read through a data parser.
- ◆ VARIO3 application computes statistics and plots histograms (relative/cumulative with arithmetic/logarithmic scale) for any variable of input control points.
- ◆ VARIO3 application computes correlation statistics and plots correlation diagrams (arithmetic or logarithmic scale) for any pair of variables of input control points.
- ◆ DCLUST module may “de-cluster” input control points prior to histogram or correlation diagram computation. Random pickup in user defined grid cells or cells statistics (proportional effect study) are available.
- ◆ VARIO3 application computes and plots experimental variograms for any variable of input control points in up to 10 directions at the same time. In each direction defined by an azimuth and dip angle, a tolerance angle, distance lag and number of lags are selected. Other options include variable transformation (log or indicator) and computation of madograms, rodograms or spatial covariances instead of variograms.
- ◆ VARIO3 application allows to interactively adjust a 3D model to experimental variograms. Model is made of up to five components of various types (spherical, exponential...) with a sill value and up to three range values and three rotation angles. Experimental and model curves are constantly displayed on screen.
- ◆ KRIJAC module tests the performance of variogram model, variable transformation and search parameters in the re-kriging of control points from neighbors.
- ◆ KRIGE3 application performs the kriging of one variable at a time in cells or at nodes of large user-defined 2D/3D grids. Search for neighbor control points is done with an ellipsoid with user defined shape and orientation. Geological limits can be taken into account. Various kriging flavors are also offered : ordinary, simple, lognormal, multiple indicator and co-kriging with one secondary variable.
- ◆ TRANS/SIM3/SIM3C modules are used to simulate values of one variable at nodes of large user-defined 2D/3D grids. Simulation restitutes the histogram and variogram and are consistent with available values of that variable at control points. Method used is turning bands.
- ◆ Grids of kriged or simulated values are saved as ASCII files to import in BLKCAD application for resource block modeling and visualization or in databases like Access, spreadsheets like Excel or any mining package.
- ◆ Graphics produced (histograms, correlation diagrams, experimental variograms with model) can be imported into AutoCAD with SCRNPLOT application supplied with GEOSTAT.

Hardware requirements

486/Pentium computer with at least 12Mb RAM

Windows 95, 98 or NT

Color monitor with SVGA mode (minimum 640x480 + 256 colors)

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