



DIPS 7.0

roc science
software tools for rock and soil

WHAT IS DIPS?

Dips is a program designed for the interactive analysis of **orientation based geological data**. The program is a tool kit capable of many different applications and is designed both for the novice or occasional user, and for the accomplished user of **stereographic projection** who wishes to utilise more advanced tools in the analysis of geological data.

WHY CHOOSE DIPS?

- **3D hemisphere view** of planes, poles, contours, stereonet
- Kinematic analysis and **kinematic sensitivity analysis**
- **Curved borehole analysis** - input collar and survey files
- **Statistical analysis** of joint sets
- **Joint Spacing**, frequency, RQD analysis
- **Contour general data** on stereonet
- **Multiple Data Formats**
- **Interactive** Data Analysis
- **Customize all plots, symbols**, display options and save view state

PRICES & LICENSING

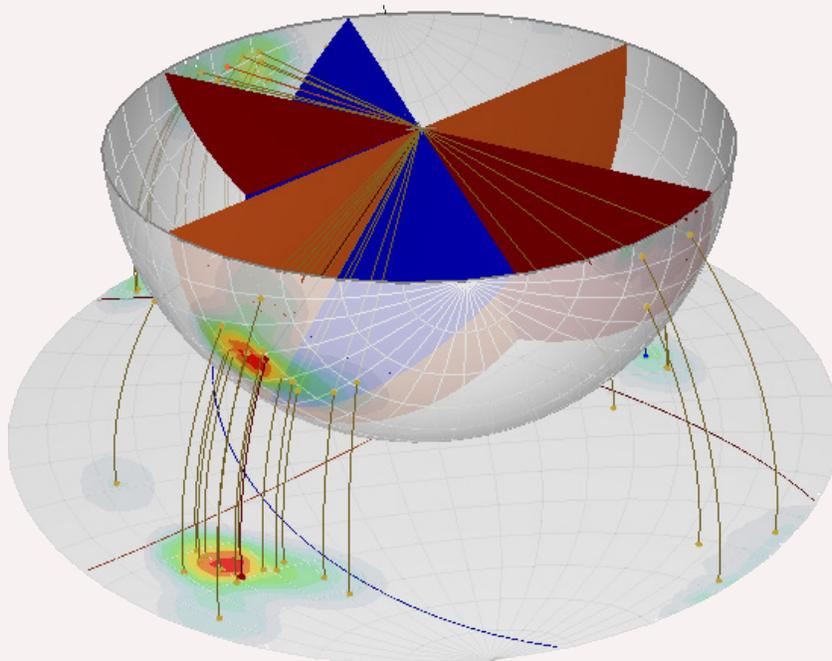
Personal License: Locked to one computer.

- Personal Perpetual: **USD \$595** Purchased outright.
- Personal Lease: **USD \$295/year**
Leased annually. Includes maintenance and upgrades.

Flexible License: Installed on any number of machines. The license file sits on the server.

- Flexible Perpetual: **USD \$895** Purchased outright.
- Flexible Lease: **USD \$595/year**
Leased annually. Includes maintenance and upgrades.

Maintenance can be purchased annually for our Perpetual Licenses at 15% of the license cost. With Annual Maintenance you will receive free upgrades and technical support. Contact us at software@rocscience.com!



Technical Specifications

FILE OUTPUT

- export to Excel
- JTDIST utility program – define up to five synthetic joint sets, generate a Dips file
- save processed file

FILTERING / ATTRIBUTE ANALYSIS

- create charts or symbolic pole plots based on any data column in the file
- edit symbols, create symbol master list
- filter by set
- histogram, line or pie charts
- plot qualitative/quantitative data
- powerful database query, easily create data subsets

INPUT DATA

- curved borehole analysis - input collar and survey files
- declination for magnetic/ azimuth correction
- distance column
- integrated spreadsheet
- linear/planar orientation data
- quantity column for multiple identical data entries
- unlimited number of columns for additional data

JOINTING ANALYSIS

- joint Frequency (unweighted or weighted)
- joint Set Spacing (true spacing or apparent spacing)
- metric or Imperial units
- plot selected traverses or all traverses
- RQD Analysis (discrete or moving interval)

KINEMATIC ANALYSIS

- apply declination to slope dip direction
- apply Terzaghi weighting to pole count
- direct toppling

- export results to Excel
- flexural toppling
- highlight critical zones
- highlight slope plane on stereonet
- lateral limits
- planar sliding
- poles, dip vectors, intersections
- kinematic sensitivity analysis: sensitivity plots of slope dip, dip direction, friction angle, lateral limits, for planar sliding, wedge sliding, toppling analysis
- wedge sliding

ORIENTATION FORMATS

- dip/dip direction
- multiple formats in one file using traverses
- oriented core (alpha/beta)
- strike/dip (right or left hand rule for strike)
- trend/plunge (linear data)

PROJECTIONS

- equal angle, equal area
- upper/lower hemisphere

STATISTICAL ANALYSIS

- best fit plane through poles (fold analysis)
- confidence and variability cones
- Fisher distributions for contour plots
- fuzzy cluster analysis for automatic detection of joint sets
- global mean vector
- mean vector calculation
- statistics listed in Info Viewer
- user-defined set windows for orientation (pole) clusters

STEREONET PLOTS

- 3D stereosphere
- contour arbitrary data on stereonet
- contour plot
- customize display options
- overlay of contours, poles, planes, intersections

- planes plot
- pole or dip vector mode
- pole plot
- plot traverse orientations on stereonet
- rosette plot
- scatter plot
- symbolic plot
- view intersections

STEREONET TOOLKIT

- add planes (rubber plane for interactive data analysis)
- data rotation about arbitrary axis
- daylight envelopes for sliding analysis in slope design
- drawing tools, text annotations
- intersection calculator
- onscreen angle measurement
- onscreen pole identification
- plot lineations on planes
- polar/equatorial grid overlay
- small circles about any axis (e.g. friction circles, toppling bounds)
- user defined trend/strike reference line

TRAVERSES

- bias correction (Terzaghi weighting)
- borehole (oriented core)
- clinorule
- curved borehole (oriented core)
- curved borehole (televiewer)
- linear (e.g. scanline)
- linear borehole (televiewer)
- planar (e.g. wall map)

VIEWING OPTIONS

- current view state saved with file
- global undo / redo
- improved printing with customizable headers and footers
- interactive graphical editing
- save plots to .bmp, .jpg, metafile, png, gif
- sidebar for quick access to display options