

#### **Specifications Sheet**

# Surfer ج

Empowering scientists and engineers to interpret complex geospatial datasets and transform them into insightful, publication-ready models.



You work hard gathering your data. Don't settle for subpar visualizations. Utilize Surfer's extensive tools to display your data as the best 2D & 3D maps and models while maintaining accuracy and precision.

## Powerful Data Interpolation

Have complete confidence in the accuracy of your model. Surfer provides numerous interpolation methods to grid regularly or irregularly spaced data onto a grid or raster, and each interpolation method provides complete control over gridding parameters. Plus, no time is wasted with multithreaded gridding!

Grid 2D XYZ data with 13 powerful algorithms

- Kriging
- Co-Kriging
- Inverse Distance to a Power
- Minimum Curvature
- Natural Neighbor
- Nearest Neighbor
- Polynomail Regression
- Radial Basis Function
- Modified Shepard's Method
- Triangulation with Linear Interpolation
- Moving Average
- Data Metrics
- Local Polynomial

Grid 3D XYZC data with 3 dynamic algorithms

- Inverse Distance to a Power
- Local Polynomial
- Data Metrics

Calculate the TVD of deviated drillholes with 5 calculation methods

- Tangential
- Balanced Tangential
- Minimum Curvature
- Radius of Curvature
- Average Tangential

Each interpolation method includes advanced options, such as anisotropy, faults, breaklines, and variogram models.



#### **Computational Analysis Tools**

Once your data is interpolated stakeholders are relying on you to understand the project and provide insights that will save them time and money. Surfer empowers you with a robust set of analysis features to extract the most from your data and identify trends, anomalies, or areas of interest.

Grid Convert - convert grid file formats Grid Math - apply math function to z values and perform functions between grid files Grid Calculus

- Directional Derivatives
- Terrain Modeling
- Differential and Integral Operators
- Fourier and Spectral Analysis

**Grid Transform** - modify XY map coordinates **Grid Function** - apply user defined Z = f(X,Y) functions

Grid Slice - generate a cross section from a grid Grid Residuals - compute vertical difference Point Sample - compute Z values of given XY locations Contour Volume/Area - compute volume and area above, below, or between contour lines Calculate Isopach - calculate thickness between surfaces Grid Mosaic - combine multiple grids into one Grid Extract - create a subset of an existing grid Grid Editor - directly edit your grid

- Smooth contours
- Erase areas
- Change nodes to a specific value
- Increase or decrease Z values in an area





#### Versatile, Publication-Quality Mapping Options

The right figure can solidify the contract. Surfer offers an extensive list of map types for you to visualize and model all types of data. Each map type contains unique, highly customizable properties that give you full control of your final output.

- Base
- Base From Online Server
- Contour
- Post
- Classed Post
- 3D Surface
- 3D Wireframe
- Color Relief

- Grid Values
- Watershed
- Grid Vector
- Point Cloud
- Viewshed
- Peaks and Depressions
- Drillhole
- Profile



#### Immersive 3D Modeling

Gain deeper insights into your data by viewing it in three-dimensional space. Surfer's 3D view makes it easy to model, analyze, and understand all aspects of your data. Switching between Surfer's 2D and 3D perspectives ensures you discover all of your data's patterns and provide a memorable presentation.

- Visualize a 3D grid as a volume render or isosurface
- Drape aerial or site plan imagery onto a surface
- Clip 3D grids at custom angles based on XYZ values
- Create a slice through a 3D grid
- Display 3D points, 3D base layers, and grids in a comprehensive model
- Create, edit, and record a fly-through
- Digitize 3D coordinates
- Create 3D Drillhole models
- Explore your model with Walk on Surface, Trackball and Pan functionality
- Export models to 3D PDF and VRMLfiles



#### **Extensive Output Options**

Seamlessly visualize and analyze data from multiple sources for multiple industries. Surfer natively reads numerous file formats and supports all popular export formats. Quickly share your work with colleagues, stakeholders, and clients in geology, hydrology, construction and beyond.

- Universally accepted 2D & 3D PDF
- Common drafting & GIS file formats
- Comprehensive raster and data file formats
- Common formats such as SHP, TIF, XLSV, JPG, CSV, KML GRD, DXF, VTK and more

Click here to view the full list of Surfer supported file formats





#### Automate Workflows

Research requires repetition to confirm your findings. Surfer ships with native automation and is compatible with popular third-party applications that will help you automate your gridding and mapping workflows.

- Use Scripter to develop and run scripts
- Automate any of Surfer's analysis tools
- Edit worksheet data
- Control Surfer with another programming environment
- Adjust map properties to a templates
- Library of script examples available





### Golden Guarantee

100% Satisfaction Guaranteed or 100% of Your Money Back

We know Surfer's visualization capabilities will help you stand out from the crowd, WOW clients, and leave a lasting impression!

But... we realize you don't know this yet. And you won't until you experience our products for yourself.

This is why we provide this guarantee. This is the distillation of a 40+ year adventure designing, developing, and honing powerful visualization and analysis features as requested by scientists and engineers like you.

Our products can produce results far beyond its license fees. We are assuming all your risk, so you have none