

New Features

This is an overview of some of **Surfer 9's** new features.

User Friendly

- Easy-to-learn, modern Windows user Interface: Surfer is designed for Windows 2000, XP, [Vista](#), or higher.
- Download free updates automatically: [Automatically check for updates](#) (i.e. 9.0 vs. 9.1) at regular intervals upon startup.
- Increase your work space: [Auto-hide](#) the **Object Manager** to increase the area of your plot window.
- Easily relocate the Object Manager: Dock the **Object Manager** easier than ever with the new [docking system](#).
- Save time and increase your efficiency: Use a wheel mouse to [zoom realtime](#) and [pan realtime](#) in the plot document and grid node editor.
- Switch between documents quickly: Use [tabs](#) to easily move between [plot](#), [worksheet](#), and [grid node editor](#) documents.
- Customize your work environment: Customize [buttons](#), [commands](#), [keyboard shortcuts](#), [menus](#), [options](#), and [toolbars](#).

General Features

- Add opacity to maps and objects: Control opacity for [line](#), [polyline](#), [text](#), [symbol](#), [image](#), [metafile](#), [fill](#), [contour fill](#), [layers](#), [foreground](#), and [background](#).
- Additional custom color control: Create [custom colors](#) using the standard color wheel, entering specific *Hue*, *Saturation*, *Luminosity*, *Red*, *Green*, and *Blue* values, or extracting a color from the screen with an eyedropper.
- Easily move objects position/size: Enter new values in the [Position/Size toolbar](#) to accurately update the position and size of the selected object.
- Compatible with more formats: [Import](#) and [export](#) more [file types](#). New supported [grid formats](#)!
- Easily change an objects shape: [Reshape](#) objects with more control.
- Save time when selecting a [.CLR]: Specify a color file quickly from the preset drop-down list of [.CLR] files in the improved [Colormap dialog](#).
- See cursor coordinates instantly: See the X, Y, and Z (if applicable) coordinates of the cursor location in the [status bar](#).
- Improved label display: Trim [exponential zeros](#) in labels (i.e. display E+003 as 1E+3) for a professional display.
- More examples: Use one of the new [sample files](#) to view sample [\[.SRF\] projects](#) and [scripts](#).
- More fill patterns: Use one of the 315 windows stock, high resolution image, and USGS [fill patterns](#).

User Interface Features

- Updated commands: Plot window commands have been revised.
 - [Arrange | Group](#) replaces **Arrange | Combine**.
 - [Arrange | Ungroup](#) replaces **Arrange | Break Apart**.
 - [Map | Add](#) replaces **Map | Overlay Map**. Maps can still be [overlaid](#).
 - [Map | Export Contours](#) replaces **Map | Contour Map | Export Contours**.
 - [Tools | Options](#) replaces **File | Preferences**.
 - [Tools | Options | Advanced](#) replaces **File | Preferences | Dialog Defaults**.
- More resources available: Access the online [knowledge base](#) to browse questions and answers about **Surfer**.
- Easily add to existing maps: Add [map layers](#), [axes](#), and/or a [scale bar](#) to an existing map.

- Quickly select objects: [Block select](#) multiple objects at once.
- Increase efficiency with keyboard shortcuts: Reference the [keyboard map](#) command to see a list of keyboard shortcuts.
- Save time and keep maps accurate: [Reload map data](#) for all the map layers in the selected map object at once.
- Compare locations on maps: [Track the cursor](#) between multiple map frames.
- More information for objects: Calculate [area, length, and perimeter](#) for objects.

Map Frame

- Save time: The map [view](#), [scale](#), [limits](#), and [frame](#) pages now appear in the [Map Properties](#) dialog.
- Preserve custom changes: Custom map limits and scale are preserved when adding new [map layers](#) to an existing map frame.

Base Map

- More control: Customize the properties of individual objects in a base map. Use [reshape](#) to edit individual polylines and polygons of a [base map](#) directly.
- Empty base maps: Create [empty base maps](#) to manually add new geometry.
- Easily change the source file: Update the file used to create a [base map](#) without recreating the map.
- Save time with Georeferenced Images: Load a georeferenced image directly as a base map without the aid of a script.

Contour Map

- More versatility: [Export 3D contours](#) to a [.SHP].
- Increased efficiency: Optimized the contour generator to more efficiently find internal contours.

Post Map and Classed Post Map

- Improve quality of labels: [Edit individual post map labels](#) and automatically add leader lines.
- Save time with custom [.CLS] files: Save and load custom [classes](#) for a [classed post map](#).
- More compatibility: Use a [database](#) to create a post or classed post map.

Image Map

- Control transparency of missing data: Set missing data to transparent in the [image map properties](#). Set the image map [colors](#) to be partially transparent.

Shaded Relief Map

- Control transparency of missing data: Set missing data to transparent in the [shaded relief properties](#).

3D Wireframe Map

- Easily change the source file: Change or update the grid file of a current 3D wireframe map in the [wireframe map](#) properties to produce a new map.

Gridding

- Increased grid size: Maximum [grid size](#) per side increased from 10,000 to 32,767.
- Save time with the grid toolbar: Use the [grid toolbar](#) to execute grid commands more efficiently.
- More compatibility: Create a grid file directly from a [database](#).
- Create grids from images: Open images into the [Grid Node Editor](#) and save as a grid file.

Worksheet

- Projection support: Assign a data projection with [assign projection](#). [Project coordinates](#) in the worksheet.
- Improve efficiency: Change the [default columns](#) used for coordinate X, Y, and Z data.
- Easily search the worksheet: [Find and Replace](#) text and numbers in the worksheet. Improve your [find and replace](#) search by using wildcards (*,?).
- More compatibility: [Import database](#) files directly into the worksheet. Import Microsoft 2007 [Excel \[.XLSX\]](#) files into the worksheet.
- Filter data: [Filter](#) X, Y, and optional Z coordinates before posting or gridding data.
- Link between maps and data: [Track the cursor](#) between worksheet data and maps in the plot window.
- More math functions: Use the improved [mathematical functions](#) expression parser to create equations.

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