

# Surfer 7 Version Info

## Version 7.05 (October 24, 2001)

- [New] Surfer can now read floating point and long format SDTS DEM files. This should allow all known flavors of SDTS DEM files to be imported correctly. The information display now shows the Profile Identifier which can be used to identify the particular type of DEM.
- [New] The worksheet now uses several new heuristics to be "smarter" about automatically recognizing delimiters in ASCII data files.
- [Fixed] DXF files with 999 records could not be imported.
- [Fixed] The Automation IPostMap::SetSymbolScaling method resulted in the incorrect message "No data in height column."
- [New] The SHP import filter now reads 3D objects and converts them to 2D.
- [Fixed] A scaling factor was not applied to text heights for block inserts when importing DXF files.
- [Fixed] The color spectrum control would not add every 10th node starting at the 9th. This would eventually cause an access violation.
- [Fixed] Various fidelity and orientation problems in the CGM export filter.
- [Fixed] DXF import of some files results in "File contains no known objects."
- [Fixed] The Automation method Shapes.Paste method would sometimes fail with an error message.
- [Fixed] Grid | Calculus | Fourier & Spectral Analysis | Grid Correlogram can cause an application error.
- [Fixed] The formatting in the grid reports has been fixed on Windows 2000 to eliminate the series of rectangular block characters.
- [Fixed] Printing some bitmaps results in a black line at the bottom.
- [Fixed] DXF import was not correctly recognizing multiple comment fields.
- [Fixed] Complex vector fill patterns may not appear properly on Windows 9x platforms.
- [Fixed] Importing some SDTS files can cause an application error.
- [Fixed] BLN and BNA files were not recognized if non-ASCII characters are used in the ID fields on the first line.
- [New] The SDTS import filter has been modified as follows: If a simple (non-compound) polygon has fewer than three discrete points, it will be passed as a polyline instead of a polygon. If a compound polygon has three or more points in the outer ring, but fewer than three in the inner ring, the outer ring is passed as a polygon and the malformed inner ring (which has zero surface area and is inside the outer ring) is discarded. If a compound polygon has three or fewer points in the outer ring, all rings are passed as polylines.
- [Fixed] Spline Smooth sometimes results in an edge of the grid being set to 0.0.
- [Fixed] Creating a variogram from more than 65535 data points can result in an application error.
- [Fixed] Some exported DXF files cannot be block-inserted into AutoCAD.
- [Fixed] The Grid Data | Radial Basis | R-Squared parameter was not being properly saved when modified.
- [Fixed] Reading some SDTS DEM files sometimes caused an access violation.
- [Fixed] Deleting a Scale object can corrupt the Surfer document. This can result the error message "Can't save linked object by itself. Unable to render GS\_Surfer format" when copying the map to the clipboard.
- [Fixed] Internal error when trying to extract a completely blanked grid.
- [Fixed] Undoing some operation on a map followed by exporting the map can result in an incorrect coordinate shift.
- [Fixed] Missing line segments and incorrect clipping of ellipses on maps with an active clipping region.
- [Fixed] The Automation method Application.GridData() causes a memory and resource leak due to a hidden report window not being destroyed.
- [Fixed] User is prompted to save changes to the Grid Data report when shutting down Surfer - even when the report was not requested.

## Version 7.04 (August 1, 2001)

- Home Products Services Support About Us Register Downloads Demos
- Increased the precision of gridding calculations when using Triangulation and very large numbers (like UTM coordinates).
- Added a setting to the surfer.ini file to adjust the number of beeps when a gridding operation is completed. This can be set to 0 to disable beeping completely. For example:  
[Settings]  
NumGridDoneBeeps=0
- Updated to the latest versions of msvcr7.dll, msvcp60.dll, and mfc42.dll.
- Fixed a problem that was causing bitmap basemaps to disappear when overlaid.
- Fixed an issue in the worksheet that caused an out of memory error when a line in the data file was terminated with a single CR (no LF).
- Worked around an issue in some postscript and PDF printer drivers that was causing some bitmaps to be shifted when they were clipped during output.
- Worked around a problem in some USGS SDTS files that resulted in a slight shift of the XY coordinates of the imported grid. The SDTS filter now bases the XY position on the quadrangle corners.
- Added a new symbol set containing geologic symbols. See GSGeol1.ttf.
- Fixed an issue that caused a crash when the Grid Info button was pressed. This would only happen if the grid had a filename longer than 50 characters.
- Error importing DXF file created by Surfer Map | Contour Map | Export Contours menu command.
- Use the gsidxf32.dll version from Surfer 7.03 (available on the installation CD and via download).

## Version 7.03 (August 9, 2000)

- Surfer 5 SRF files (and Surfer 6 SRF files created from Surfer 5 files) containing basemaps with embedded text were not correctly orienting some text objects. (fixed)
- Internal error when the axis label font height is set to 0. (fixed)
- Internal Error when creating a Post Map with Proportional Scaling if the data file only has one point. (fixed)
- Grid Data reports insufficient data for XLS files with no data in column A.(fixed)
- Base maps created from PLT files that contain symbols may not use the correct symbol set. (fixed)
- Increased the maximum text size from 4 inches to 10 inches.
- Increased the precision used within the Grid Data | Triangulation algorithm. This provides significantly greater accuracy when gridding large numbers such as UTM coordinates.
- 32767 nodes in DEM files are now recognized and converted to the blank value.

- The Surfer 6 automation model command DrawMarker() fails to assign the object ID, and returns a 0 (false) in Surfer 7, though the symbol is drawn correctly. (fixed)
- Internal error if the Axis | Scaling | Major Interval is set to 0. (fixed)
- Access violation when opening some foreign language XLS files. (fixed)
- INT 10H and various floating point errors when opening Surfer 6 files on some computers. (fixed)
- Reduced the minimum threshold for displaying Grid Data Statistics to 3 data points.
- The correlogram and periodogram were both incorrect for grids with an even number of rows. (fixed)
- Autoscrolling entries in the object manager using the arrow keys does not work on Win9x. (fixed)
- Grid Data using the Natural Neighbor algorithm would sometimes blank the entire grid. The precision of the triangulation algorithm used by Natural Neighbor has been significantly improved to eliminate this error.
- Increased the size of the row/column display in the grid editor to display larger indices.

#### Version 7.02 (March 6, 2000)

- Optimizations have been made to reduce the size of output files when printing or exporting large polygons. This reduced the size of generated postscript files by a factor of 3 to 4.
- DXF export now supports the DXF HATCH entity (a filled polygonal shape).
- The quality of non-rotated text has been greatly improved when exporting to a bitmap.
- Values typed, but not ENTERed in the worksheet were not being saved when the Save or Save As command was used. (fixed)
- Contour maps with no edge contours (contour lines that intersect the edge) were not being filled correctly sometimes. (fixed)
- Text within metafiles did not accurately retain the correct height when the metafile was broken apart. (fixed)
- It was possible to crash Surfer by editing a composite object label and choosing the Arrange | Break Apart menu command. (fixed)
- Combining 2 or more maps containing scale bars caused an Application Error. (fixed)

#### Version 7.01 (December 30, 1999)

- GIF import and export has been added.
- SHP Export lets you specify map coordinates and corresponding page coordinates like DXF, BLN, BNA export.
- The export dialogs now use 14 significant figures in the edit boxes to avoid loss of precision in the scaling information.
- 36-bit bitmap images can now be imported.
- DXF import/export supports color fills.
- The Variogram dialog would abort with an error message if the first three columns of the data file did not contain sufficient data. The procedure has been modified to allow an opportunity to select different columns before aborting.
- The coordinates in the status bar do not coincide with the rulers when the LogPerInch INI file setting is set to 500. This has been corrected.
- Double clicking an SRF file in Explorer causes the error "Cannot find the file <pathname>filename> (or one of it's components). Make sure the path and filename are correct and that all required libraries are available." The startup sequence has been adjusted to fix this.
- Gridding some data sets with faults would sometimes cause spurious results, including excessive blanking in the output grid. This has been corrected.
- Map | 3D View has been modified to work with multiple selected maps as it did in Surfer 6.
- In rare cases, it was possible to get an Application Error when creating a filled contour map. This would only happen if all the grid nodes were contained within a single contour interval, and the grid contains blanked values. This has been corrected.
- Contour fill was incorrect for some obscure grid node and contour level configurations that contained no contour lines. This has been fixed.
- Grid | Function now checks for a completely blanked grid and issues an appropriate error.
- The Map | Shaded Relief command displays an error when scaling a horizontal planar grid: "Surfer Error - Value must be > 0 and < = 3.402823466E+038". This condition is now recognized and handled by resetting the Z scale factor to 1.0. Since the grid is planar, the scale factor is irrelevant.
- It is possible to create a very large map (>32.767 inches) under NT and save to an .SRF file. When loaded under Windows 9x, the 32 inch coordinate limits were exceeded and lines were drawn all over the window. An appropriate warning is now issued when the file is loaded.
- Symbols imported from certain .WMF files were upside down.
- Scripser was not honoring the window minimize/maximize start setting when launched from a shortcut.
- The Option settings in the Surfer.ini file were not being used when importing data files.
- The PLT import filter has been enhanced to import closed line segments as polygons.
- The SHP export filter has been corrected to export complex polygons correctly.
- The SDTS import filter was failing on some non-USGS data sets.
- Added additional error checking to handle inappropriate default settings for the axis scaling parameters.
- Added additional code to prevent repeating error messages during redraw.
- Various additions and clarifications in the online help and Automation samples, including Automation browser topics, and a new Help | Tutorial command.
- Fixed an issue that kept the worksheet from properly handling the option string "SkipExtraDelimiters" (used for custom file extensions)
- Worksheet print selection problem fixed when whole rows or columns are selected.
- Numeric values containing the '@' in XLS files are no longer treated as text.
- Missing Y-axis labels on LaserJet printers under Windows 95 and 98 has been fixed.
- Fixed an issue that caused bitmap basemaps to shift when Map Limits is used.
- The Color Map dialog has been modified to keep the color nodes in ascending order. This prevents a subsequent Internal Error in ColorMap.cpp.
- Reading old Surfer 6 files can cause an exception on some computers that do not handle floating point exceptions properly. (fixed)
- Certain grid files could cause an internal error when contoured with low smoothing enabled. The contour smoother has been replaced with a more robust implementation.
- The bitmap output routines have been modified to reduce the size of spooler files. This should result in faster print times when outputting bitmaps.
- Filled contours sometimes "leak" out of the bounding contour levels. This usually happened with grids that contained blanked nodes. (fixed)

- Spurious blanked regions could appear in filled contour maps when the maximum grid node was less than 0. (fixed)
- *Automation changes:*
- The srfPrintMethod enumeration argument to the Automation method Plot.PrintOut() was off by one. This has been corrected.
- Automation error messages are now displayed properly in the demo version.
- Named arguments were not working correctly for any method with arguments named the same as a property or method in the same interface (object) due to a bug in some of Microsoft's code. This has been corrected.
- The default parameters for the GridExtract Automation command cause an error. This was because the default values of -1 were not being handled correctly. -1 is supposed to tell Surfer to use a reasonable value which can be dependent upon the grid file. This is supposed to result in the same values as used in the Grid Extract dialog.
- The emulation of the Surfer 6 Automation command DocClose() caused Surfer to shut down prematurely.
- New Automation methods and properties. See the online help for more information about ColorMap.SetDataLimits(), ColorMap.DataMin, and ColorMap.DataMax.
- The Axis.SetScale command caused the error "(&H80020009) Axis exceeds coordinate space." for large values of Minimum and Maximum.
- Additional error handling has been added to the Grid.SaveFile method to check for completely blanked grids.
- Additional error handling has been added to ColorMap::SetNodes() to ensure the nodes are specified in ascending order.
- Fixed an issue in the emulation of the Surfer 6 Automation command DocClose() that caused Surfer to shut down prematurely.
- The Surfer 6 emulation of the MapContour command was not handling the iLabFreq and iHachFreq parameters correctly. This resulted in different contour levels being labeled and hachured when using the "Surfer.App" object. (fixed)

#### **Version 7.00 (August 30, 1999)**

- Surfer 7 was released.