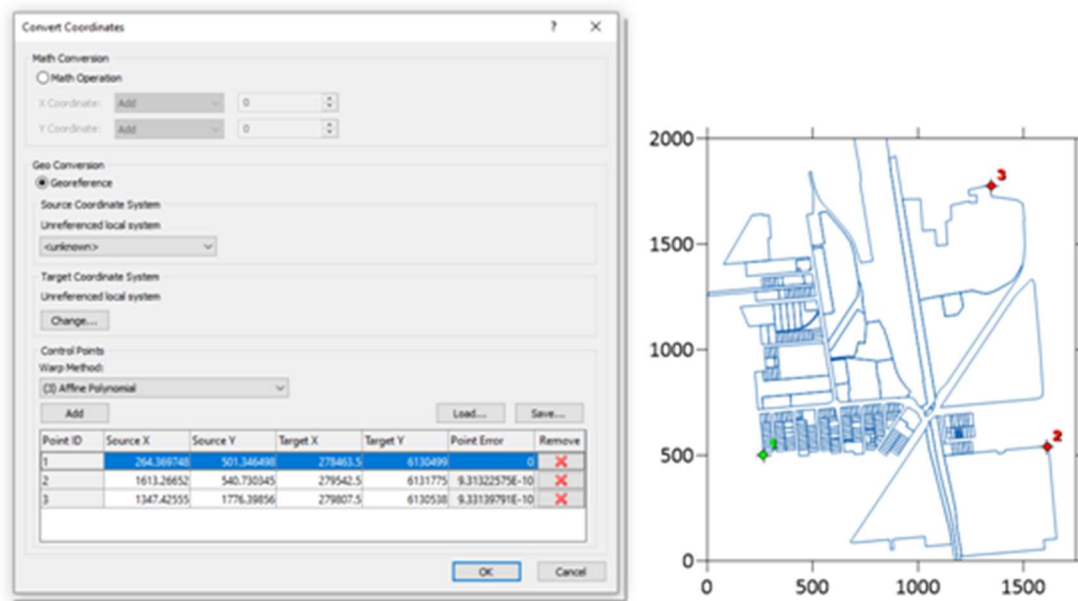# What's New in Surfer v24

There are several new features in the latest release of Surfer! The top new features are listed below.
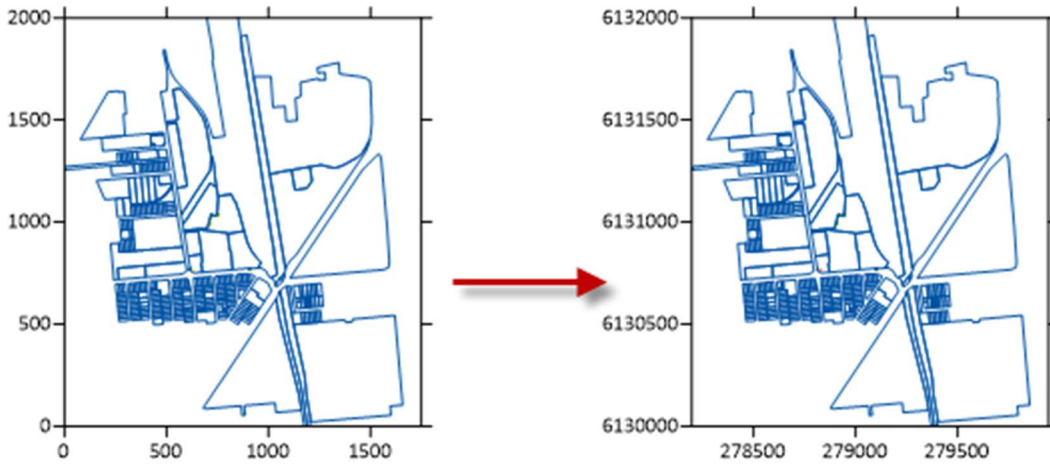
## Convert Coordinates for Base Maps

Reposition or georeference any vector base layer by assigning new coordinates to it. Use a simple math operation (add, subtract, multiply, divide or mirror) or georeference it using three or more known control points.



*Recalibrate a* Base(vector) *layer using either a Math conversion or a Georeference conversion.*

This allows you to:

- Convert the coordinates from an unknown local system to a referenced system, such as UTM or lat/lon.
- Convert or georeference the coordinates of EMF or WMF files.
- Shift a base layer in any direction to match up with other layers. For example, shift a layer in the Y direction by 50 and the X direction by 10.
- Assign real world coordinates to base layers if they import in page units.
- Convert raw data points (from data files imported as *Base from Data* layers) to new coordinates. Once converted, the converted data can be saved and gridded.
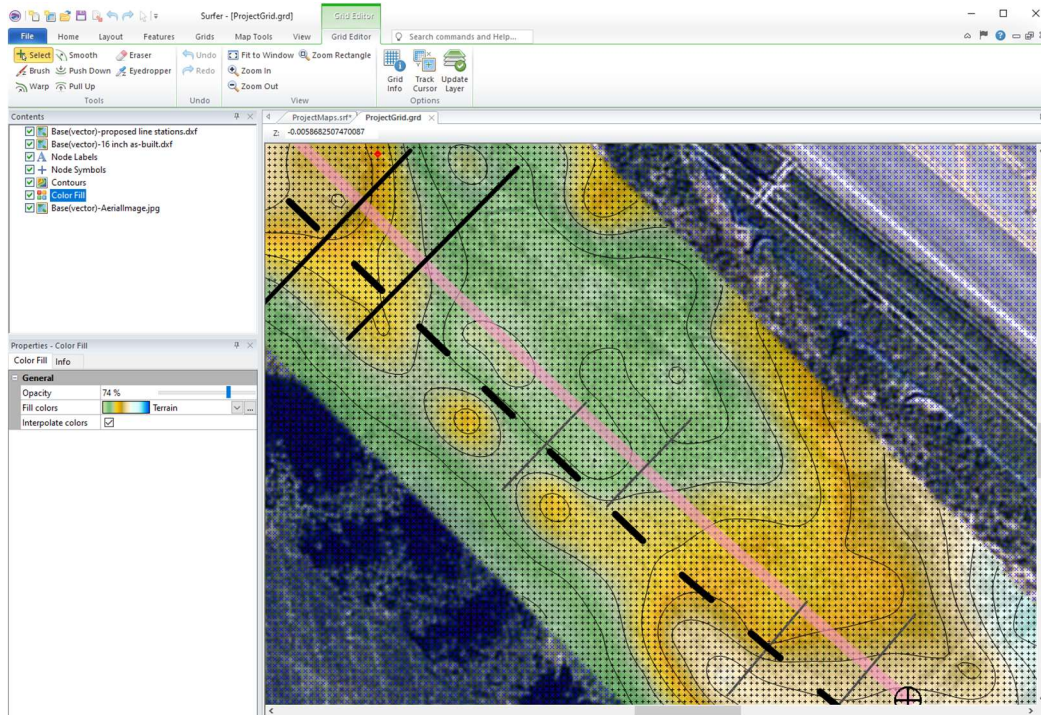
*Convert the coordinates for any* Base(vector) *layer from a local or unknown coordinate system to a known coordinate system, such as UTM or lat/lon.*

# View Base and Post layers in the Grid Editor for Context

Edit a grid from the plot window and when the grid opens in the **Grid Editor**, any post or base layers in the map are also displayed in the **Grid Editor**. This allows you to easily edit the grid relative to imagery, control points, polygons or polylines, or other objects in a background map or overlay.

For example, edit a grid and show the coastline and land use data in the **Grid Editor**. Or show buildings, streams or field boundaries to help you define and identify the edits needed to the grid file.
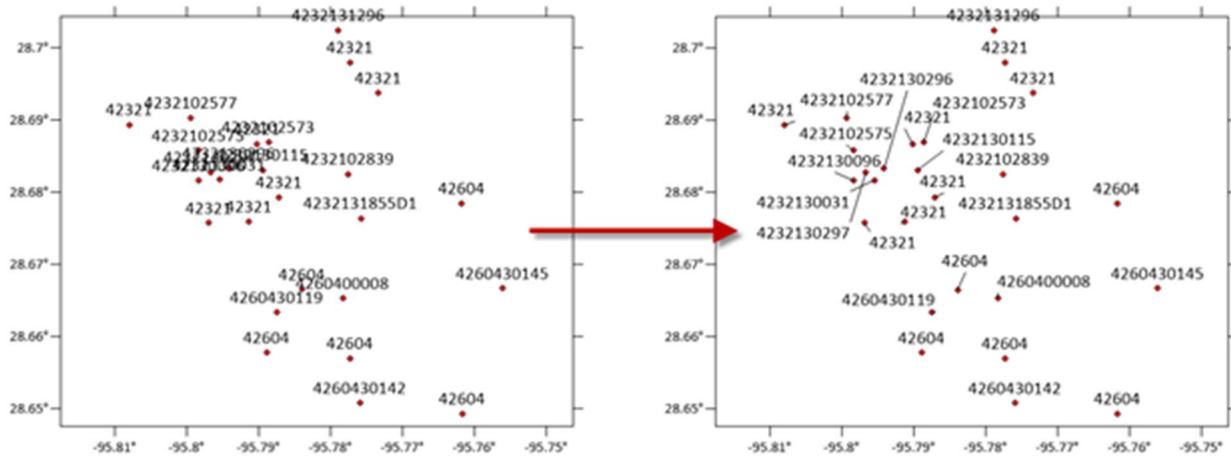


*View post, classed post and base layers (both raster and vector) in the **Grid Editor** for context when editing your grid!*

# Disperse Labels

Reposition labels on post, base and drillhole layers so that they do not overlap. This allows you to:
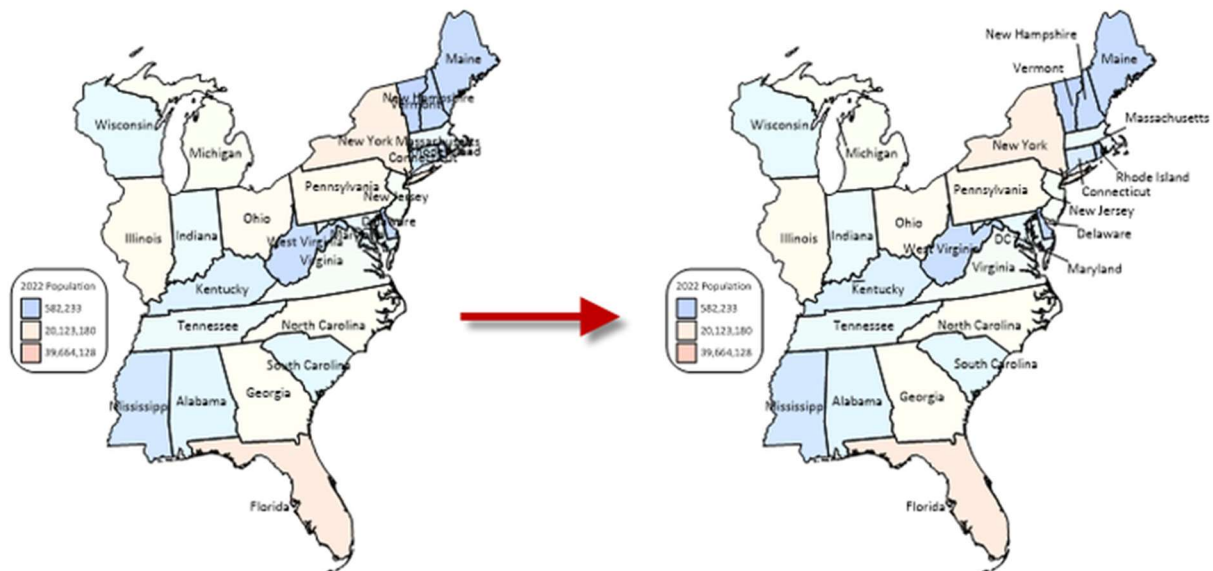
- Easily and automatically avoid colliding labels for densely spaced points
- Display borehole labels on a drillhole layer and space the labels out so they don't overlap
- Create post or base maps of wells, labeled with well names or pumping rates, and view the labels clearly.



*Automatically disperse labels, such as well API numbers, so they don't overlap.*

# Leader Lines

Base and drillhole layers now have leader lines connecting labels back to their respective objects! Edit label positions so the labels can be read clearly, and then know exactly which object the label belongs to.



*Display label leader lines for base or drillhole layer labels to identify the object that goes with the label.*