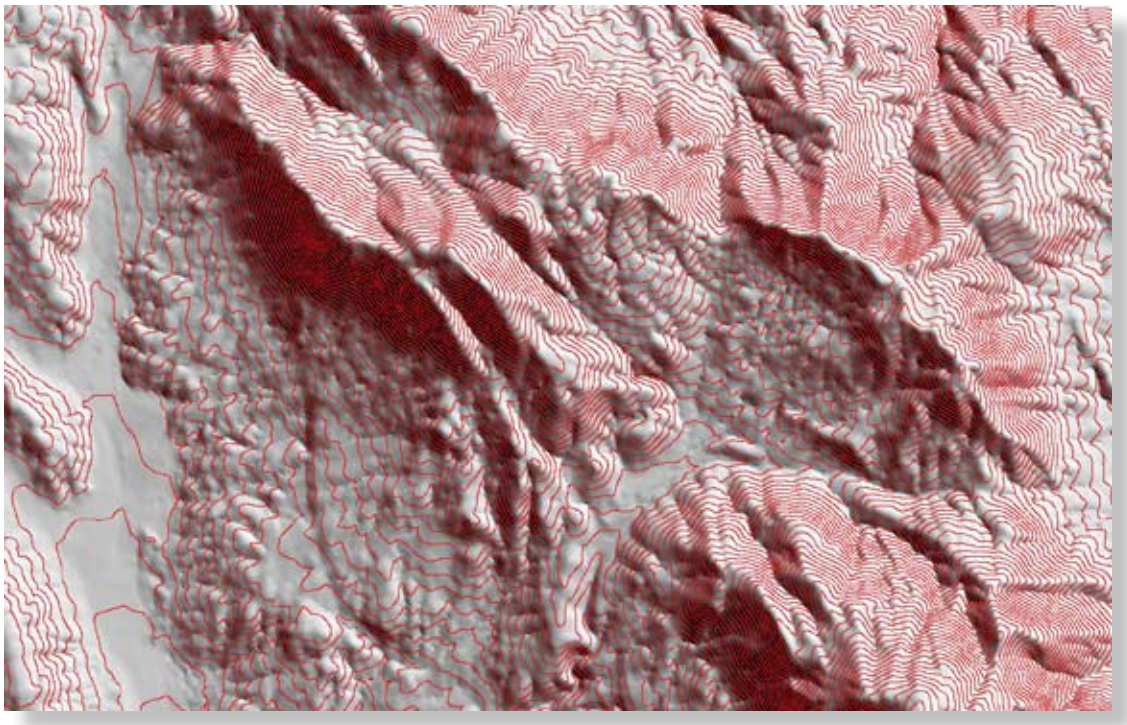
# Contours



## Offering seamless three-dimensional contour datasets derived from and designed to complement our entire suite of NEXTMap® digital elevation models

### High-quality Contours to Meet Your Specific Geospatial Needs

We automatically derive our contours from our bare-earth digital terrain models (DTMs) and make them available at various intervals, depending on your specific application requirements and the terrain characteristics of your area of interest. Our contour generation methodology is well-designed, thoroughly tested, and passed through a strict quality control regimen.



DTM data and derived contours developed from NEXTMap USA – California.

### Key Features of Intermap's Contour Products

Our precision contour datasets are seamless and:

- feature elevations that are referenced to mean sea level
- include index contours
- eliminate the employment of breaklines in contour generation (our elevation models do not rely on the creation of breaklines)
- undergo a rigorous quality-controlled production methodology to ensure the highest accuracy

## Contour Intervals

When determining the appropriate contour interval for a particular application, it is important to consider the application for which contours are needed. Different applications may require different contour intervals. One of the factors to consider is the slope of the terrain within the area of interest.

According to the National Standard for Spatial Data Accuracy (NSSDA) specification for contours[1], digital elevation model (DEM) data can be used to create contour data with an interval approximately 3.25 times the vertical accuracy (RMSE[2]) of the DEM. While the published RMSE specification for Intermap's DEM data is 1 meter, the average RMSE is between 0.6 and 0.7 meters. Accordingly, Intermap's DEM data can be used to reliably generate contour data with an interval of 7 feet, or approximately 2.15 meters.

While these are commonly accepted industry standards, internal analysis has shown that Intermap's DTM data (in unobstructed areas) can produce reliable contour data with an interval of 3 feet. Contact your Intermap sales representative for information on creating contours with other intervals to meet your specific needs.

## Data Format

Intermap's contour data is available in various vector formats including AutoCAD® DXF and ESRI® shapefile. The projection, datum, and units of measurement for the contour data are specified by the customer and correspond to the projection information of the DTM used to derive the contour data (see note below).

## Pricing

The base pricing for Intermap's contour data is based on a contour interval of 7 feet. For contour data with different intervals, Intermap's professional services team will determine a price that meets both your requirements and delivery timeframe.

Note: because commercial software can be used to generate DEM data from contours, Intermap only makes contour data available as an add-on option when purchasing DTMs for the same region.

[1] David F. Maune, PhD, CP (ed.), *Digital Elevation Model Technologies and Applications: The DEM Users Manual*, 2d ed., American Society for Photogrammetry and Remote Sensing, 2007, p. 458.

[2] RMSE: the root mean square error is derived from a statistical formula for measuring the accuracy of our data against independently obtained "truth" data. The resulting RMSE value is a measure of the difference between these two sets of data.