

## **Five Dimensional Interpolation: Recovering from acquisition constraints**

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Sparse acquisitions present problems for seismic processing and migration that impact the final image used in interpretation. CGGVeritas has developed 5D Interpolation, a multidimensional interpolator to predict new shots and receivers at desired locations while preserving original data. Simultaneous interpolation is performed in the four prestack dimensions: inline, crossline, offset, azimuth and frequency. Because its multidimensional nature, it uses information from different directions and therefore can deal with large gaps in sparse data better than more localized algorithms. The method is capable of interpolating beyond aliasing preserving amplitude variations along the four spatial dimensions.