INTRODUCTION

TomoXPro is a software product developed for crosswell seismic survey design and modeling, signal processing, traveltime tomography, reflection wavefield migration, and post-processing of seismic gathers and images.

Survey Design: using a background image to design arbitrary layer or grid velocity models with interfaces, faults, or objects.

Modeling: applying 2D finite difference modeling for calculating acoustic, elastic, or anisotropic wavefield synthetics and snap shots of wave propagation.

Time Picker: picking traveltimes of multiple arrivals (P- and S-wave) by manual, semi-auto or full auto pickers.

Traveltime: QC traveltime picks, and build an intitial velocity model from traveltimes.

Model Builder: editing grid models with interpretation results or interfaces.

Grid Model: display velocity models and overlay with migration image, modify velocity models.

Raytracing: wavefront raytracing for calculating traveltimes and raypaths of direct arrivals and/or reflections.

Tomography: nonlinear first-arrival grid based traveltime tomography.

Pre Process: signal processing wavefield separation.

CDP Stack: CDP stack of up-going wavefield or down-going wavefield.

Migration: wide-angle Kirchhoff migration for up-going or down-downing wavefield with anti-aliasing filter applied.

Post Process: processing migration gathers and migration image.