

# ASPEN EARTHSTUDY 360™

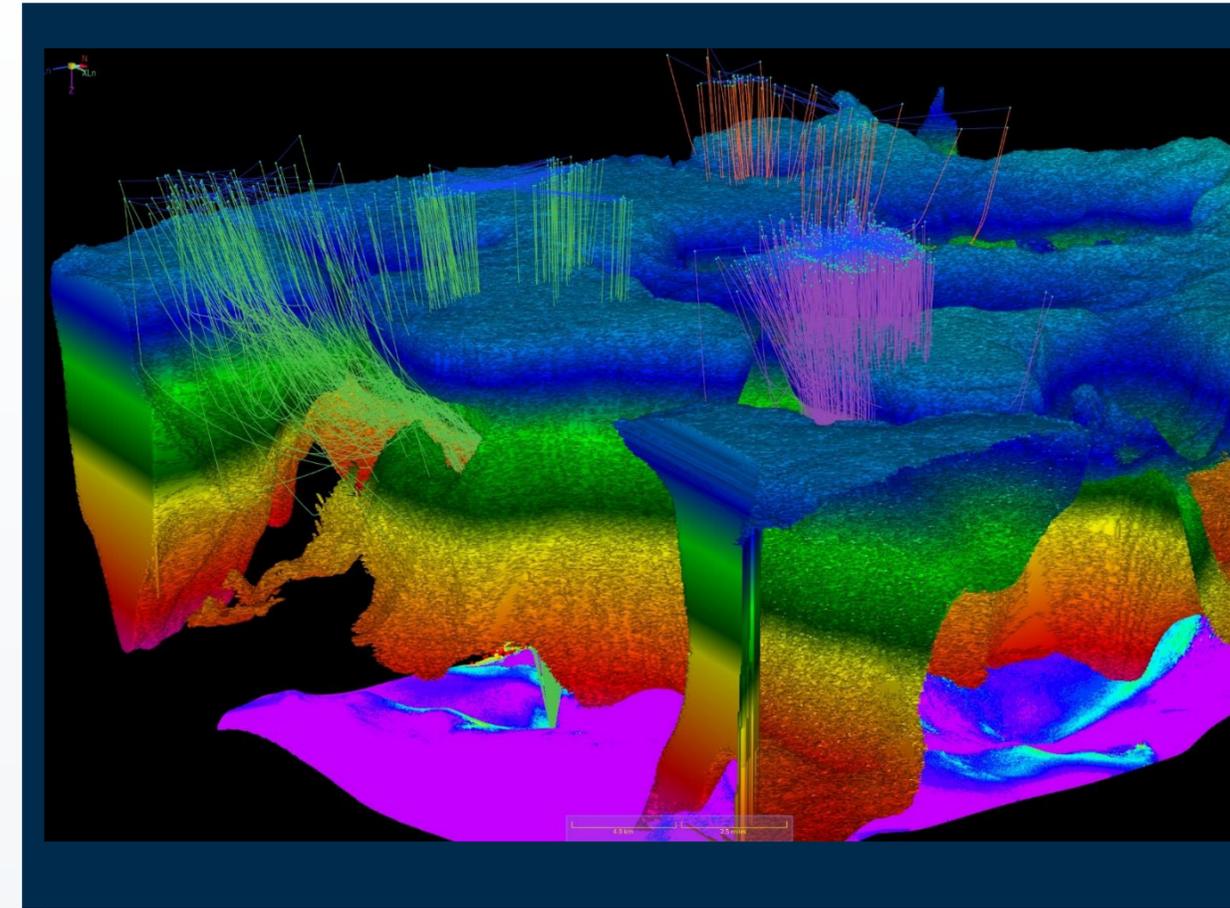
A Full 360 Degrees of Insight into the Subsurface

2023



# A new world of information for geoscientists

Standard imaging technologies have traditionally been unable to provide sufficient detail and accuracy when imaging the subsurface. New methods were required to deliver to both depth imaging experts and interpreters a complete set of data that enables them to obtain accurate subsurface velocity models, structural and stratigraphic attributes, medium properties and reservoir characteristics from all modern and legacy seismic data acquisitions.



## CHALLENGES

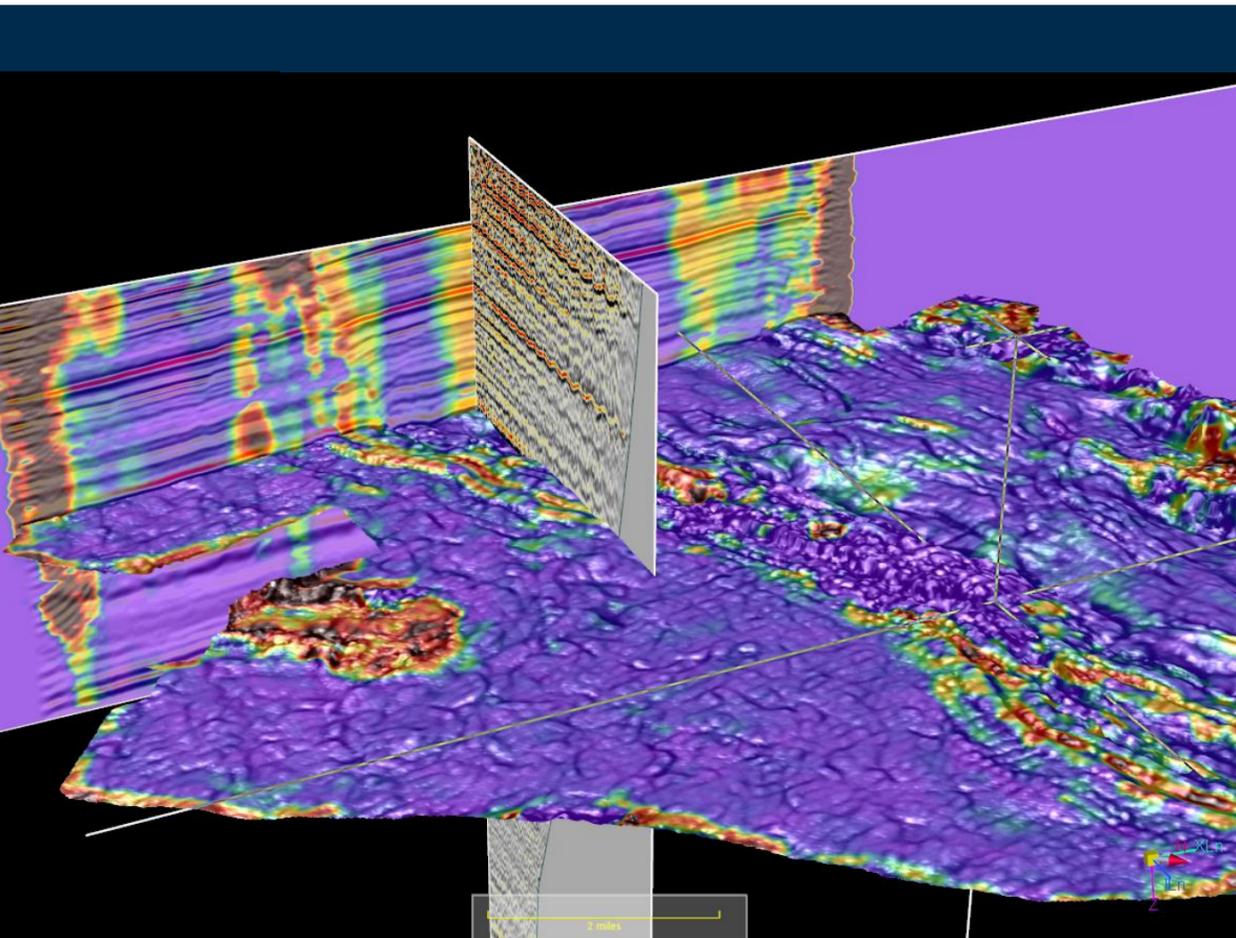
Find an innovative imaging technology that can extract previously unattainable information from all modern and legacy seismic data acquisitions, especially those with wide and rich azimuth and long offset, in both marine and land environments.

## IDEAL SOLUTION

A comprehensive system for high-resolution imaging that successfully handles challenging subsurface complexity and delivers optimal solutions for velocity model building (anisotropic tomography), fracture detection and reservoir characterization.

## DESIRED OUTCOMES

Accurate and in-depth knowledge that reduces the risk of expensive drilling in challenging environments, provides a comprehensive analysis of the subsurface, and enables the geoscientist to deliver economic recommendations to management.



## Aspen EarthStudy 360

Aspen EarthStudy 360 is a full-azimuth angle domain imaging and analysis system designed to image, characterize, visualize and interpret the total seismic wavefield in all directions, providing a highly accurate and detailed description of the subsurface.

1

### MAXIMIZE INFORMATION FROM SEISMIC DATA

Extract unprecedented value from all modern and legacy seismic data acquisitions in both marine and land environments..

2

### REDUCE DRILLING UNCERTAINTY AND RISK

Higher outcome certainty through better seismic images and subsurface velocity models reduces the risk of expensive drilling in challenging environments.

3

### ADD INVESTMENT VALUE

Optimizes ROI in challenging environments with hard-to-recover reserves, such as deep water, unconventional shale resource plays, fractured carbonate reservoirs, and fault sealed traps,

# Aspen EarthStudy 360 & Microsoft Azure

With Aspen EarthStudy 360 and Microsoft Azure, users have access to best-in-class applications from anywhere with an internet connection, and data can be shared between multiple users.

## BENEFIT FROM CLOUD COMPUTING POWER

Access to latest hardware on the cloud enhances performance of AspenTech applications

## BENEFIT FROM CLOUD SCALABILITY

Elasticity of the cloud for HPC applications – infinite compute capacity

## BENEFIT FROM COST-EFFECTIVE STORAGE

Support for Azure blob storage for seismic data



## Customer Success

“EarthStudy 360 maximizes information about complex subsurface structural geological models and the fine details required for identifying and characterizing small-scale aligned objects, such as fracture systems, which are essential for high productivity.”

### Imaging and Characterization of a Shale Reservoir Onshore Poland, Using Full- Azimuth Depth Imaging

EarthStudy 360 delivers high-quality images of the reservoir and geomechanical characterization of rocks with the precision needed to steer horizontal drilling, detect sweet spots, and locate geobodies resistant to fracturing.

### Reduced Risk in Mining Based on Results of EarthStudy 360 Full-Azimuth Imaging

Knowing about possible small scale faulting systems can help companies avoid the cost of controlling water inflows, or losing the mine altogether due to water inflow through unknown fracture measures..

### Improved Seismic Images through Full-Azimuth Depth Migration: Updating the Seismic Geological Model of an Oil Field in the Pre-Neogene Base of the Pannonian Basin in Serbia

Using EarthStudy 360 technology, it was possible to substantiate the criteria for the effective placement of production and exploratory wells including optimization of the direction of horizontal wells.

# Aspen EarthStudy 360™

Call for more information: +1-781-221-6400

Ask a question via email: [info@aspentech.com](mailto:info@aspentech.com)

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Marketplace solution: [Aspen EarthStudy 360](#)



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