

# Galaxy4D

— A NEW EXPERIENCE IN RESERVOIR CHARACTERIZATION —

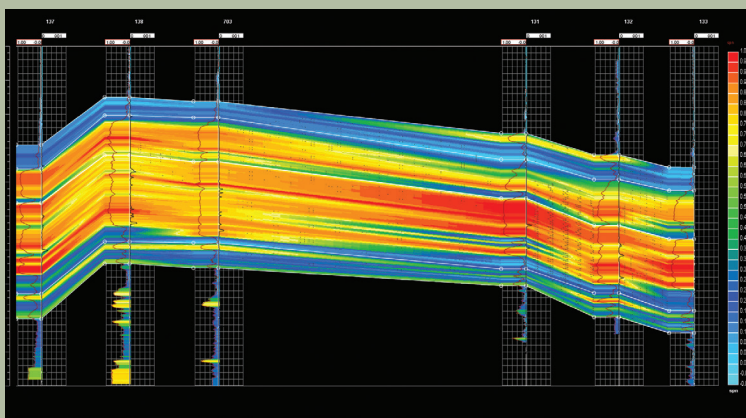
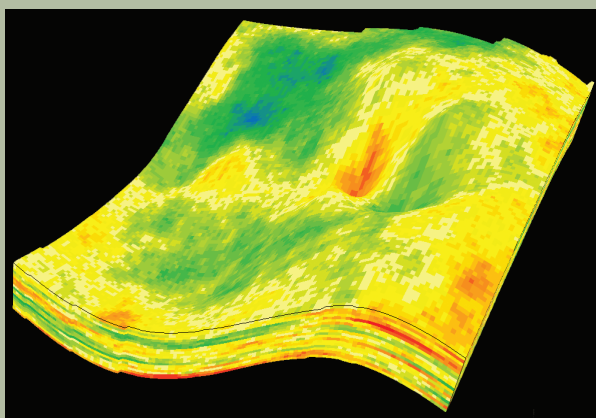


## FEATURES:

- DATA CATALOG AND MANAGEMENT
- STRATIGRAPHIC INTERPRETATION, CORRELATION, AND ANALYSIS
- STATISTICAL ANALYSIS AND VARIOGRAM MODELING
- GEOSTATISTICAL ANALYSIS AND MODELING
  - > SURFACE AND PROPERTY MAPPING
  - > FACIES MODELING
  - > PETROPHYSICAL MODELING
  - > FAULT VISUALIZATION
  - > STOCHASTIC SIMULATIONS
  - > OBJECT MODELING
- SCALEUP OF RESERVOIR PROPERTIES
- VOLUMETRICS AND 3D VISUALIZATION
- SEISMIC DATA INTEGRATION

## BENEFITS:

- INTUITIVE WORK FLOW
- MONITOR LOGGING ACTIVITY
- ESTIMATE SATURATION DISTRIBUTION BASED ON RSTs
- PROJECT EXPLORER FOR CENTRALIZED DATA MANAGEMENT AND EDITING
- RESERVOIR HETEROGENEITY AND UNCERTAINTY MODELING
- COMPARE RESERVOIR SIMULATIONS TO LOGS





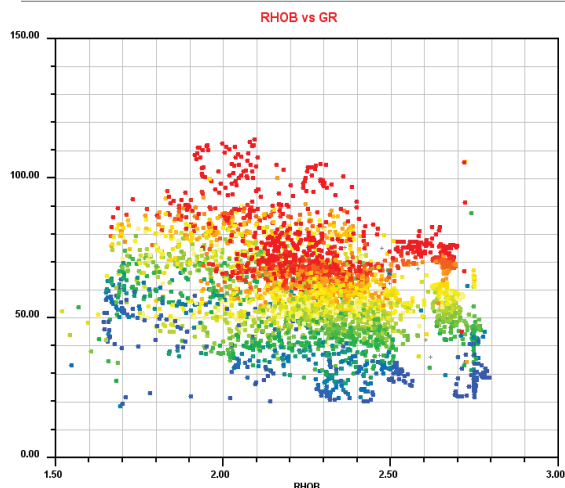
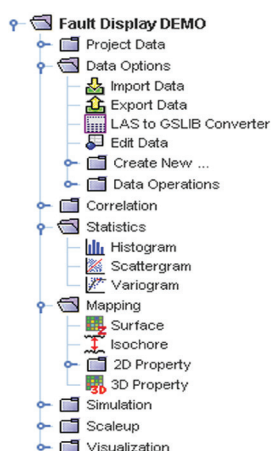
**Galaxy4D** is a platform-independent software application for fast, integrated reservoir characterization. Galaxy4D provides geologists and reservoir engineers with a highly versatile and easy to use 2D/3D stratigraphic and reservoir modeling tool. It significantly decreases the time involved in building, updating and managing reservoir models while also increasing knowledge and understanding of the reservoir. As a result, optimal field development programs can be designed faster and with reduced risks. Galaxy4D's strengths lie in its logical and straight forward workflow. Its modules and displays are intuitive, interactive, and time saving. Galaxy4D has the unique ability to estimate saturation distribution based on logs (RSTs).

#### Data Management

- Create unified catalogs for reservoir descriptions and geological, petrophysical, seismic, and engineering data
- Utilize the Project Explorer for the management and editing of input and output
- Define and edit grids, zones, surfaces, markers, facies, variables, and properties
- Create new facies and variables, perform data transformations, grid-to-grid operations, etc
- Import and export in industry standard data formats

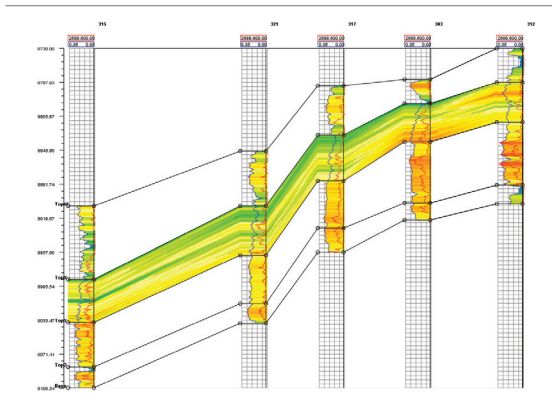
#### Statistical Analysis

- Analyze histograms of reservoir properties for single or multiple wells, for 2D and 3D data sets, on a zone by zone or defined area basis
- Examine scattergrams of selected variables with calculations of regression equations and correlation coefficients
- View variograms for 3D spatial correlation and modeling using horizontal, vertical, and nested variogram options
- Constrain data analysis by facies, zones, areas, wells, and other specified cutoffs



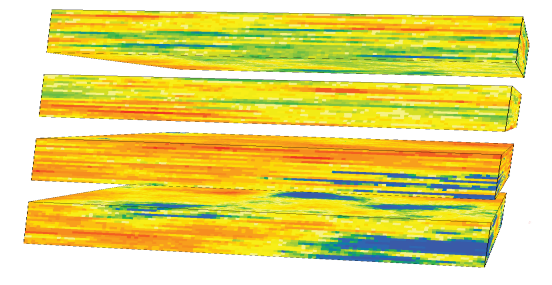
## Well Correlation

- Select cross sections from the base map
- Create log templates and scales for single or multiple curves
- Interpolate inter-well reservoir properties.
- Edit and create correlation markers
- View logs in side-by-side log panels for detailed correlation analysis
- Create zones interactively
- Flatten horizons and edit the color bar



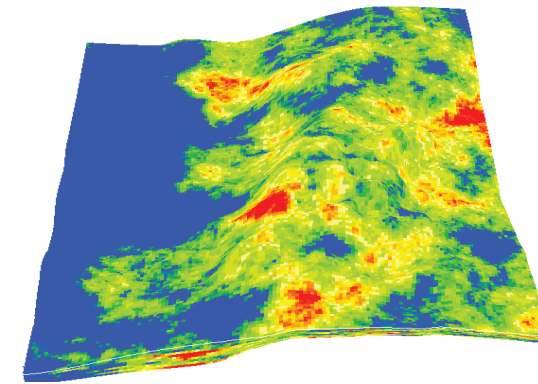
## Gridding and Mapping

- Place multiple 2D grids and base maps within the same project
- Model onlap, pinchouts, and truncations using stratigraphic gridding options
- Analyze 2D maps of depth, isochores, and reservoir properties (porosity, permeability etc.) via kriging and 2D mapping from 3D property volumes
- Import and incorporate key seismic surfaces and faults



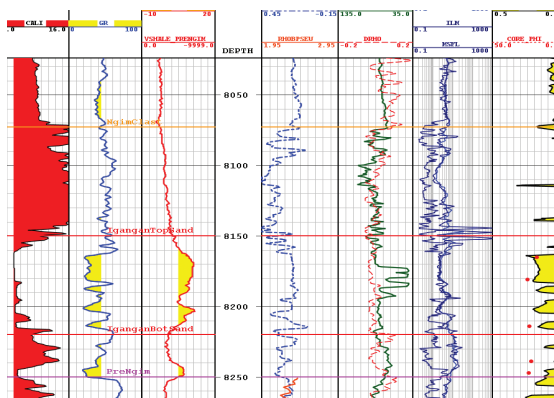
## 3D Simulation, Scaleup, and Visualization

- Construct characterized 3D reservoir volumes via geostatistical simulations of reservoir properties for single or multiple zones
- Simulate Gaussian, Indicator, Hybrid, and Fluvial simulation types
- Scaleup reservoir property models
- Visualize 3D volumes with advanced slice, layer, cross-sectional, and fence diagram views alongside the display of well logs and faults
- Export 3D reservoir models and volumes to various flow simulators



## Petrophysical Analysis

- Display log and core data
- Create, save, and print logplot templates
- Compute zone-wise petrophysical properties for single or multiple wells
- Create user-defined curves from existing logs and merge curves by zone





#### ABOUT PLANO RESEARCH:

- Plano Research Corporation provides a wide array of sophisticated products for the oil and gas sector. Our proprietary technology has been designed to simplify and speed up the analysis of routine and complex problems faced by geoscientists and engineers during all phases of the oil and gas exploration and development. Currently, we offer the following products:

FlowSim (a black oil and compositional reservoir simulator),  
CAESAR (a well and reservoir management application),  
Transients+ (a pressure transient analysis package),  
Analytics (a waterflood optimization tool),  
PetroPhase (a phase behavior software package),  
PVT (a fluid property data application),  
Oil3D (a gas, oil, and water simulation tool),  
GeoTrak (a resource analysis and exploration toolkit),  
PetroTrak (an online well and field management application),  
CoreLog (a petrophysical interpretation tool),  
Galaxy4D (a reservoir characterization software),  
Sigma (a seismic interpretation package), and  
SmartEOR (an EOR screening tool).

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