2021
PALEOSCAN™

RELEASE NOTES
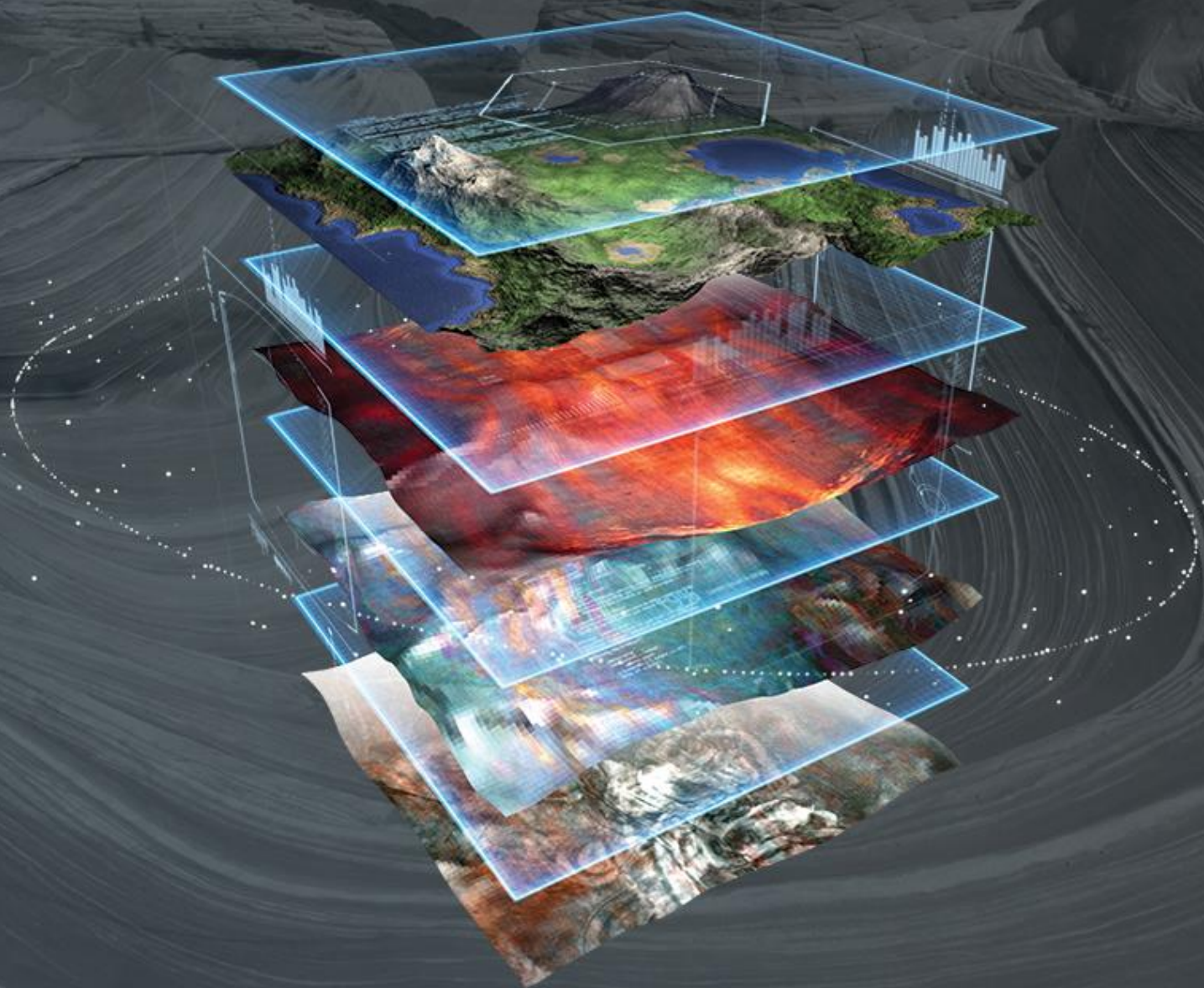
Integrated Seismic Interpretation Software

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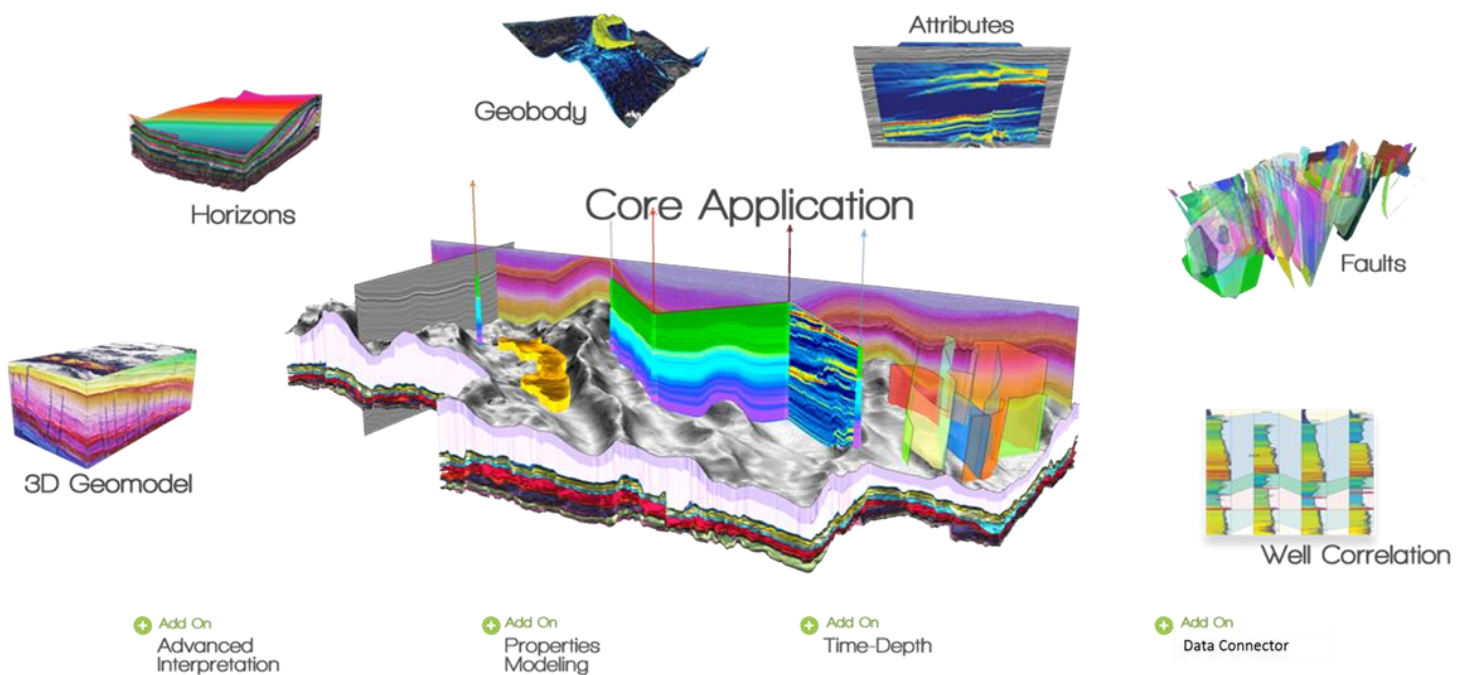+55 (21) 99575-0071

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PaleoScan™ 2021

PaleoScan™ is a new generation of 3D seismic interpretation software, where geoscientists build a geological model while interpreting seismic volumes. With this new release, Eliis continues to innovate in seismic interpretation and brings more tools to interpret larger seismic datasets, with added speed and precision.

The 2021 version includes all updates counted in the last version and features, new and improved tools, for a better support of data constraints.

- The **AVO Post-stack attributes** are available,
- The **Extended Elastic Impedance (EEI) workflow** is available,
- The **Least Squares inversion** method is available,
- The **RESQML.v2** format is available for the GeoCellular Grid export,
- The **Sessions** are more robust and have been completed.

This document lists all the new features and upgrades implemented in PaleoScan™ 2021. A detailed description of each tool can be found in the "User Guide" or on the web site (www.eliis-geo.com).

New Features & Improvement

Attribute

Feature	Description
AVO Attributes	Implementation of new tool in the Volume toolbar to create AVO attributes from AVO post stack volumes (near, mid, far).
New Average Energy attribute	The new Average Energy attribute corresponds to the square of the RMS Amplitude and represents reflectivity measures. It allows detecting amplitude variations. This attribute is available for 2D and 3D Attribute generation as well as real time display. It is also part of the filters used for attribute mapping on Horizons and Horizons Stacks.
New Spectral Balancing attribute	The new Spectral Balancing attribute enhances the vertical resolution by boosting the high frequencies. This attribute is available for 2D and 3D Attribute generation, with an amplitude spectra preview, as well as real time display. It is also part of the filters used for attribute mapping on Horizons and Horizons Stacks.

Reservoir

Feature	Description
Extended Elastic Impedance (EEI)	EEI reservoir characterization process using composite logs from multi-well and logs correlation, angle reflectivity creation and property volume creation.
Deterministic Inversion	LSQR method: Implementation of new Deterministic Inversion algorithm, improved performance, residual and synthetic outputs.
Geocellular Export	New export format: RESQML v2 allowing the export of: - GeoCellular grid, - GeoCellular faults - Grid Properties.
Property Modeling	Sequence integration in Well Property Modeling: Ability to use existing sequences for the property propagation.

Automatic Fault Extraction （AFE）

Feature	Description
Fault Plane (AFE)	A better resources management for the Fault Plane computation. The improvement concerns the following resources: • RAM usage optimization, • The threading is better adapted to the RAM.

GeoModel

Feature	Description
Marked Only GeoModel	Optimization related to the Marked only GeoModel computation time

Maintenance

Feature	Description
Sessions	**Missing objects management into session saving and loading.**
	Fix bugs related to the 3D Object List at the session loading impacting the object display in the 3D view.
Platform	Fix a general unexpected behavior closing viewers when double click on the top bar.
3D SEG-Y Import	Fix a bug related to SEG-Y loading using Survey Offset which freezes the software interface.
Log Import	Fix a crash in LAS 3.0 format Log import when unselect all logs in the custom panel
	Fix a crash when import Log without defined a CRS
Calculator	Fix a crash on the calculator. Now it is possible to cancel the process or complete the computation
Color Bar	Fix a bug in the Color Bar initialization
	Fix a bug related to a remaining and not adapted scale factor in the Color Bar
GeoTIFF	Fix a crash related to GeoTIFF import

3D Viewer	Improve 3D Viewer robustness by fixing random crash related to Seismic InLine display
2D Viewer	Fix a bug on Debug Mode where 2D Viewer Properties and its navigation were not working
3D Cube	Fix crash on 3D sculpted cube
2D Model-Grid	Fix a bug related to UTM sampling of the Horizon Viewer in the 2D Model-Grid
	Fix a bug on the Node display in the 2D Model Grid
Geo-Model	Fix a crash happening when adding Fault Set as input of the 3D Multi-Z Geo-Model Smoothing tool
2D Attribute	Fix a crash on Horizon Stack from Horizon tool
	Management of crash related to SOS attribute on 2D line with high resolution
	Fix issue on output attribute volume result which was different in the attribute window preview
3D Attribute	Fix a crash of Deterministic Inversion when input volumes do not intersect each other
	Fix a bug related to Deterministic Inversion where output folder is not generated at the right place
2D Line Conditioning	Fix issue related to shifted 2D Fault plane if picked on 2D Lines with CRS different from Project CRS
	Fix crash related to 2D line set creation
3D Horizon	Fix error message happening during 3D Horizon import with a CSV format
2D Horizon	Fix a bug on 2D horizon interpolation when using SBP data
	Fix issue on exported horizons from 2D Model grid horizon list
	Fix issue on exported 2D horizon with customed file format
	Improve warning message when importing 2D horizon without data column
3D Horizon Stack	Fix crash on Horizon Stack creation from Horizon tool
	Fix a bug related to data mapping when using the Duplicate Horizon Stack tool
Well	Fix a crash related to well layout opening
Velocity Modeling	Fix saving bug on Velocity Modeling generation when V0 has a negative value

Sonic Calibration	Improved depth scale display in the Sonic Calibration tool with scale adapted to the vertical log extension
	Fix a bug related to the log track properties which were not preserved
Well-Tie	Fix a bug related to the current wavelet usage in the Well-Tie process
Python	Fix a crash on Python Module Finder

Licensing

PaleoScan™ 2021 can be downloaded from the Eliis web site. A personal user account is required. If you do not have a login and password to access to the Eliis extranet, you can apply for one by completing this form.

Eliis provides you a free 30-day temporary license to evaluate PaleoScan™ 2021. The temporary license will give you full access to the software with all add-on modules.

Project Compatibility

The PaleoScan™ platform is compatible with all PaleoScan™ projects.

Forward compatibility:
Projects saved with previous versions of PaleoScan™ can be updated to PaleoScan™ 2021 when the projects are being loaded.

Backward compatibility:
Projects created with PaleoScan™ 2021 can also be opened with previous versions (2020 or 2019). However, some new object properties might not be readable by earlier versions.

Hardware Requirements

PaleoScan™ is a Microsoft Windows® stand-alone software, running on PC equipped with a 64-bit processor with the minimum requirements equivalent to the below mentioned items:

- CPU: 6-Core
- RAM: 16 GB
- Operating System: Windows® 7, 8 or 10 (64-bit)
- Graphic card: 512 MB NVIDIA® / ATI® graphic card
- IDE devices: Hard disk with fast rotational speed (> 7200 rpm)