

Version 1.0.326.0

Release Notes

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OpenMind v1.0.326.0

Enhancements:

OP-751 Add Angle Stack Conditioning ML model OP-752 Add certificate so that installer is recognized by Windows OP-757 Upgrade on installer version OP-758 Update OWT log names on well Templates.xlsx OP-748 Transition to new licensing system - better support to virtual machine environments

Bugs fixed:

OP-704 Synthetic trace and impedance log does not appear consistently on seismic composite plane OP-761 Fix Geotiff export issue

OpenMind v1.0.293.0

Enhancements:

OP-741 Add CUDA runtime to installer OP-747 Add TensorRT to installer OP-749 Use standard RGB colors to well tops

Bugs fixed:

OP-703 Synthetic Reflection Coeff Log does not appear as discrete values OP-745 Polarity issue when autotracking OP-746 Templates.xlsx access problem

OpenMind v1.0.209.0

Enhancements:

OP-520 Add support to "Undo" in well top editing

OP-698 Axes reversed when swapping viewpoint

OP-724 Well log import improvement

OP-732 Edit VOI in plane/map view

OP-734 "Max time in ms" disabled by default

OP-736 Show input cube mini-window for SpectralDecomp attribute

OP-738 Python installation behind proxy server

OP-744 Add license details on login pop-up when license is not activated

Bugs fixed:

OP-705 Zooming in on 2d line view gives a black well ribbon OP-739 Issue loading specific 2D line which was missing some CDPs OP-706 Not possible to move well top when well trace is in front of the top

OpenMind v1.0.162.0

Enhancements:

OP-34 Inform user of eventual newer stable versions OP-353 Composite seismic intersections OP-431 Seismic polarity visualization choice per seismic and project OP-640 Update installation of ML Python dependencies OP-670 Units support when importing well deviation .dev files OP-731 Load all traces into memory for VOI

Bugs fixed:

OP-668 Problem with reading .dev file OP-675 Extracted body: Does not appear correct in flatten mode. OP-707 Volumes should be calculated down to input contact OP-725 Issue on VOI when loading realized cropped volume OP-726 Missing Ruler (scale bar) icon OP-729 Fill in small holes not working as expected

OpenMind v1.0.139.0

Enhancements:

OP-712 Import multiple 2D lines with the same settings OP-715 Performance improvements while dragging planes OP-719 Added Isopach horizon attribute

Bugs fixed:

OP-714 Problem loading 2D seismic files OP-716 Histogram gets "inverted" OP-717 OpenMind doesn't recognize well logs when opening project OP-718 OpenMind hangs after successive "Load all traces into memory" OP-721 Regression: Imported Spectral Decomp cube lacks color settings OP-722 Zmap format issue

OpenMind v1.0.116.0

Enhancements:

OP-609 Add support to Fault subfolders OP-689 User request: way to visualize/filter discrete property values in imported AVO classes volume OP-691 Introduce Create/Edit Composite Plane OP-692 Improve color support for polygons OP-708 Upgrade to .Net 8.0 OP-710 Introduce "Clear memory" for all objects

Bugs fixed:

OP-678 Extent of attribute maps exceed the actual extent of original seismic when the "Mix with" and "Overlay by" is turned on OP-685 Copy visual settings to same folder problem OP-686 Issue when training 3D UNet for AI horizon interpretation OP-688 Exception when importing shapefile OP-690 Unload all traces does not free memory instantaneously OP-699 Different color bars being presented, depending on seismic format OP-701 Flickering seismic lines when moving plane OP-702 Well data in in old project does not appear OP-709 Issue loading saved project OP-713 Curtain option not working, after introduction of Composite plane

OpenMind v1.0.34.0

Enhancements:

OP-523 New coordinate system library

OP-652 Adjust z-level of imported geotiff images

OP-656 Add comments to Variance attribute

OP-661 Clean-up repeated horizon tracking AI methods

OP-665 New Make Surface tool

OP-667 Improvements on reconnecting missing seismic and geotiff files

Bugs fixed:

- OP-662 Color bar not appearing when loading specific zgy file
- **OP-664 Reading Formation Tops failed**

OP-671 Horizons seem to be linked somehow

OP-672 Loading project with 2D lines cause error

OP-674 Fix editing 2D Line Plane Node

OpenMind v1.0.0.0

<u>Tasks:</u>

OP-207 Well import with multiple wells

OP-412 AI image-based fault interpretation - research task

OP-419 Creating "seed cube" as starting point for fault interpretation

OP-420 Adaptation FloatImage3D for fault interpretation

OP-421 Implementation of convolutional neural network for fault learning and inferencing

OP-437 Use mini window to display the seismic spectrum

OP-498 Load, visualize, and interpret seismic 2D segy files

OP-514 Upgrade OpenMind to .NET 7

OP-519 Show which TDR is active

OP-524 Implement Variance Attribute

OP-525 Add frequency spectrum to mini-window

OP-528 Introduce Velocity mini window

OP-532 Introduce Velocity Model

OP-538 Export polygons

OP-539 Introduce Volume Models

OP-540 Volume calculations improvements

OP-544 Added "exclude well" to Velocity model

OP-545 Contour/contact line for Volume model

OP-547 Calculate Acoustic Impedance (AI)

OP-549 Collapse all / expand individual folders and objects

OP-551 Calculate vertical P-P reflectivity from Acoustic Impedance

OP-552 Convolve reflectivity with wavelet

OP-569 Make "Restore Default Layout" not to divide in two vertical blocks

OP-585 Add missing CRS code for Australia

OP-563 Change "Add Context" to "Add Culture Data"

OP-565 Move "Project settings" to top menu of OpenMind

OP-566 Change "Operations" to "Workflow"

OP-567 Change "Logs" to "System log"

OP-570 Make "Optional fields" in the well heads import dialog collapsable

OP-583 Seismic file appears locked for OpenMind

OP-593 Segy importer improvements and optimization

OP-594 Makes well heads the only format available when importing wells on new projects

OP-595 Update "Load data.." text showed on new projects

OP-596 Allows scaling of well tops symbol and labels separately

OP-597 Improve deleting multiple objects simultaneously

OP-598 Improve usability for CRS selection on import

OP-603 LAS individual file importer

OP-604 New "Body Extraction" tool added to OpenMind workflow

OP-605 Add support to multiple kelly bushing keywords when loading LAS file OP-606 "Drag and drop" accepted OpenMind file formats from Windows Explorer directly into "Data Explorer"

OP-613 Export geotiffs

OP-616 Improvements and fixes on LAS importer

OP-617 New "flat" icons added

OP-621 ZGY file open in Petrel cannot be opened in OpenMind

OP-623 Improvements on LAS file reader

OP-625 Improvements on wells and well top picking

OP-628 Improve collapsible segy import preview window

OP-631 Window gets focus from hovering over

OP-633 Horizon looks discontinuous in "Lock camera to plane" view

OP-634 Generate Time-Depth Relation without well tops

OP-637 New convergent gridder horizon fill type

OP-638 Introduce Surface calculator

OP-641 Re-using settings when creating new fault object

OP-642 Introduce Make Synthetic Trace log on the Well Tie Workflow

OP-644 Display synthetic trace

OP-649 Introduce Trace Calculator seismic attribute type

OP-650 Enhancements on Make Synthetic Trace log

OP-653 New Well log projection in plane command

Bugs fixed:

OP-513 Error when using AI horizon interpretation

OP-521 Generate Time-Depth Relation ignores water depth at well

OP-529 Wrong tooltip on Save project

OP-531 Well tops label visualization issue

OP-533 "View from" button occasionally shown wrongly

OP-541 Issue when loading seismic on new projects

OP-543 OpenMind crashes when clicking on volume directory output selector

OP-571 No error message when loading of seismic with different geometries on the same survey

OP-575 Information text not visible

OP-584 Crash when importing segy from Australia with specific parameters

OP-591 "Volume of interest" settings lacks vertical control

OP-592 Error loading small segy file

OP-608 Selecting the Fault Probability cube from the Explorer tab using the blue arrow in front of the input field under Auto Tracking Settings, does not work.

OP-610 Horizon visualization problem

OP-611 Well tops are not shown when visualized

OP-614 Not possible to draw polygon in Time domain

OP-615 CRS not properly recognized when importing shapefile

OP-619 A Petrel zgy file can not be read by OpenMind

OP-620 Error when loading Horizon points with values separated by tab

OP-622 Wrong horizon visualization

OP-624 CRS not being recognized when loading well heads file

OP-626 Cubes realized inside VOI do not react correctly to horizon flattening

OP-627 Seismic plane does display correctly for huge cubes

OP-629 Timeslice below VOI behaves strange

OP-630 Freepoints always visible

OP-635 Error when loading Open Zgy file

OP-636 Dock panels resizing issue (non-precise movement)

OP-648 Fault probability model need active cube

OpenMind v0.1.2645.0

<u>Tasks:</u>

OP-55 Add signing to OpenMind installer

OP-236 Read log values at picked location

OP-264 Import data from Avary

OP-279 Read Petrel .crsmeta.xml coordinate information

OP-337 Seismic attribute calculator I

OP-342 Generic points import on Interpretation folder

OP-390 Adds support to NAD27 in coordinate reference system

OP-434 Create new Well tie workflow

OP-439 Introduce Seismic Spectral Decomposition

OP-444 Using the Volume of Interest in the Realize operation

OP-445 Crop volume: export to honor VOI boundaries

OP-446 Include Python on OpenMind installation

OP-455 Enabling different cube sizes on the same survey

OP-459 Update Bundle installer to run with code signing certificate

OP-467 Allow Overlay/Mix/Curtain visual options to be used simultaneously

OP-468 Add support to logarithm well log visualization and color bar

OP-474 Introduce new Seismic Attributes: Instantaneous Frequency, Derivative, Integration.

OP-475 Make horizons honor vertical VOI range, when VOI is active

OP-479 Introduce tiles for timeslices

OP-485 Introduce Enhance Local Contrast operation

OP-488 Draw simple polygon

OP-501 Lock Camera to Plane

OP-507 Create new plane option, when in "Locked plane" mode

OP-509 Color updates on spectral decomposition attribute

OP-510 Shapefile improvements when used with "View all"

OP-503 Add instrumentation to OpenMind OP-515 Improvements on color blending OP-516 Enhancements on Mini Window

Bugs fixed:

OP-373 Too many icons are highlighted as active OP-379 Active Operations do not reflect workflow OP-381 Interpreting free points: Line on seismic section should be visible OP-448 Split window function is not stored when the project is saved. OP-458 Deleted window reappears after saving project OP-468 Add support to logarithm well log visualization and color bar OP-499 Issue with visualizing segy seismic file (Lime Petroleum)

OpenMind v0.1.0.2503

<u>Tasks:</u>

OP-364 Zoom by scroll wheel works opposite way OP-378 Update references in OpenMind-Python-Tool

Bugs fixed:

OP-259 North arrow disappears in Orthographic view OP-262 "Rerun selected seed point" OP-368 "Blue circle" does not indicate "action needed" OP-374 Wells in time domain hanging under a black surface, not inside a black cube

OpenMind v0.1.0.2500

<u>Tasks:</u>

OP-299: Show line number in preview OP-372: Only surfaces from autotracked seed points can be displayed with amplitudes. This should not be our end product. Up for discussion

Bugs fixed:

OP-193: Wrong file names on Installer OP-375: Fault points are not included in the surface before you increase the Max bay width. You need to keep increasing it!

OpenMind v0.1.0.2481

Main updates:

- New version of Python Tool (v0.0.5.dev3), supporting interpretation and horizon objects
 - https://test.pypi.org/project/OpenMind-Python-Tool/0.0.5.dev3/
- It is recommendable to upgrade to the latest stable Python version (3.10.X), and latest version of other dependencies as well (grpcio, protobuf, etc.)
- Revamping on internal messaging system
- Optimizations on AI auto-tracking
- Adds filtering on shapefiles containing multiple shapes
- Bug fixes on free points
- Other small fixes and improvements

List of tasks:

OP-184: Python Tool: add support to Horizons OP-260: Delete seed points OP-319: Fault planes are filled. Should be gaps. OP-324: Lines are breached

Bugs fixed:

OP-287: Interpreting using seed points fail OP-310: Too many active elements OP-323: Manual interpretation x-line cylinders too high

OpenMind v0.1.0.2465

List of tasks:

OP-183: CRS library upgrades

Bugs fixed:

- OP-321: Error message when clicking "Ctrl+A" on fault points
- OP-325: Missing New 3D Window menu button
- OP-328: Error when training AI interpretation

OpenMind v0.1.0.2461, with Python Tool v0.0.5.dev2

List of tasks delivered:

OP-231: Update project after changing Templates.xlsx OP-235: Install Color Maps folder on user AppData OP-242: Workflow improvements around interpreting previously interpreted seed points OP-269: Select multiple seed points with Ctrl-click OP-320: Enables using fault probability cube as input to autotracker

Bugs fixed:

OP-265: Making surface from horizon fails OP-309: Erasing seed points with x-circle - crashed

OpenMind v0.1.0.2455

List of tasks delivered:

OP-91: Magnify from center OP-300: Use comma as a separator in Generic points

Bugs fixed:

OP-252: Autotrack Resolution Issue

OP-253: Autotrack avoid seed points

OP-256: Hourglass blocking Horizon tracking from seed points

OP-284: Seed point Visualization

OP-294: Multiple 3D windows issue

OP-297: Cryptic error message when autotracking

OP-306: Error message when interpreting near undefined areas

OP-308: Old bug is back. Dots remain after surface delete.

OP-309: Flatten horizon gives error message

OpenMind v0.1.0.2451

List of tasks delivered:

OP-209: Introduce "Make surface from horizon" operation OP-210: Autotracking extensions (review over buttons functionality)

OP-288: Review over FileShare option when opening zgy file

OP-305: Introduce "free points" for manually extending horizon interpretation

Bugs fixed:

OP-240: Crash on import of KingdomExport.sgy OP-249: Generic points fails with XYZ format OP-277: The volume is rotating in north south direction, but not in east-west direction OP-283: Dozens of Error pop-ups when opening project saved with Al-interpreted horizon OP-286: ZGY Import fails from external disk (Lundin T drive) OP-290: Shapefile does not appear after saving project OP-291: Error loading project saved with Geotiff images OP-302: Storing a zgy file from a segy file in OpenMind gives an error message

OpenMind v0.1.0.2422

List of tasks delivered:

OP-208: Investigate Blueback Avary API OP-276: Extend support to new shapefile type not yet supported OP-282: Change order for seismic import format

Bugs fixed:

OP-266: Autotracker makes yellow line interpretation without filling surface OP-281: Horizon Visual settings missing when opening saved project OP-285: Missing Global well logs top icon

Document history

Date	Details	Editor - Title
2022-11-19	Initiated document	Flávio Ivan - CTO
2023-03-31	Updates for version 0.1.2645.0	Flávio Ivan - CTO
2023-10-12	Updates for version 1.0.0.0	Flávio Ivan - CTO
2023-12-16	Updates for version 1.0.34.0	Flávio Ivan - CTO
2024-02-08	Updates for version 1.0.116.0	Flávio Ivan - CTO
2024-03-06	Updates for version 1.0.139.0	Flávio Ivan - CTO
2024-04-03	Updates for version 1.0.162.0	Flávio Ivan - CTO
2024-05-29	Updates for version 1.0.209.0	Flávio Ivan - CTO
2024-08-06	Updates for version 1.0.299.0	Flávio Ivan - CTO
2024-09-10	Updates for version 1.0.326.0	Flávio Ivan - CTO