Enhancements and Fixed Defects in SubsurfaceAI 2024.2

November 19, 2024

Module 1: Multi-Scale Database

G4969 (Enhancement): Support latitude and longitude in well header import
G4928 (Enhancement): Support multiple formats of file name in 2-D line import and support multiple lines and multiple attributes
G4566 (Enhancement): Auto-check seismic datum when loading seismic and opening the project: if there is any time seismic data and the survey datum is set as zero, it will let user confirm with the datum
G4564 (Enhancement): Change 'Well Log Group' tree structure to use 'template- aliases' instead of just using aliases
G3722 (Enhancement): Be able to edit/ add well tops from 'Well Information' window and 'Well Properties' window
G5077: Resistivity log unit is not correct (should be ohm.m not ohm)
G5075: Icon for resistivity and conductivity log is not correct
G5067: Exporting multiple well path and las files have problem if the well name contains "-" symbol
G5059: Reading 16-bit ZGY has problem when the data is larger than 2GB
G5041: Specify domain type when importing ZGY
G5040: The properties tab for imported ZGY volumes was showing 0 valid traces until using the Utilities options to re-calculate the correct number
G5006: Exporting shape file will hang the software if filename contains question mark
G4948: Add more usual log templates such as RLLD, RLLM, RLLS
G4934: When importing 2-D seismic lines, changing the attribute name also incorrectly reassigns the line names
G4879: Export/ import culture data is extremely slow if using a different projection system
G4868: Exporting horizon to a different projection system is extremely slow (may crash)
G4872: Change the warning message text when importing las but cannot find matched well in the project
G4863: 2-D SEG-Y importing: all lines' names are the same if the SEG-Y files have no extension
G4842: Cannot match existing well when importing LAS
G4802: Select a well when importing well log, but a new well is created after importing
G4799: Sometimes the export of 3-D volume segy is too slow
G4743: Projection system is not correct in the exported geotiff file
G4735: Invalid value is not set using calculator on seismic volume
G4727: Seismic calculator in depth range by horizon is not working
G4645: Increase the step when importing 3-D seismic volume, the imported data has huge differences than the original seismic volume
G4600: Export template and then import: the template has missing and replicated information
G4584: Be able to import well top and top properties data exported from geoSCOUT
G4558: The negative Z value option is not working if selecting other projection system when importing the data
G4545: Certain well log template is not recognized when importing LAS file
G4524: Export facies strata-grid to seg-y and then import it, the pattern does not match

G4480: Incorrect type is set when importing fault stick
G4457: Add "remove well path coord" to well sub folders or group
G4456: Highlighting well using arrow key instead of mouse click, well info does not update
G4453: Unable to import well path file exported from AccuMap
G4387: Support CDP values with decimals when importing 2-D horizons
G3720: Be able to select well name from dropdown when specifying well information manually in well top import
G4721 (Linux): Importing bitmap causes crash

Module 2: Integrated Visualization Environment

G4940 (Enhancement): Be able to manually update the proportional log curve if the input logs change
G4891 (Enhancement): Improve well log display on basemap window UI
G4870 (Enhancement): Be able to display proportional log curve on basemap window
G4771 (Enhancement): Revise UI of color fill in contour display of horizon
G4746 (Enhancement): Visualization of well top label angle settings affects performance
G4541 (Enhancement): Add control to modify the line as transparent on base map view
G4399 (Enhancement): Improve well name display: be able to display well name at well toes for horizontal wells
G4581 (Broken): Stage filter and well filter of well formation display is not working in 3-D and base map window
G5073: Strata-grid geobody should overlay strata-grid on seismic section
G4935: In default show the legend when displaying 2-D data
G4930: 2-D survey horizon does not display correctly in time in 3-D window
G4861: Highlighted section viewport range does not update on base map after moving arbitrary section in the seismic section window
G4860: Inline/ crossline numbers on the seismic section do not update when animating the section
G4859: Cannot change fault color from attribute to solid color
G4856: Proportion curve transparency is not working
G4852: Seismic plotted in wiggle is wrongly above well log on seismic section
G4841: Error in 3-D rendering of facies volume that has invalid value
G4811: Well top size changes after changing to circle and modify circle weight then changing back to filled circle
G4798: Set default lighting setting in 3-D window
G4586: Well formation rendering is not correct in 3-D and base map window
G4515: Well top displayed on base map view is not well controlled by the settings
G4441: Culture data display color does not correct in properties page
G3629: Drawing well log proportion curve in seismic section window has slow performance

Module 3: Well Log Data Analysis and Prediction

G4713: Log normalization results are incorrect if using depth range
G4690: The regional and local depth range from log normalization should be the same
G4646: Be able to select continuous log to upscale well log

Module 4: AI for Core Photo Interpretation and Property Prediction

Module 5: Geologic Correlation of Well Logs

Module 6: Formation Property Modeling & Prediction

G4991: Creating surface from new defined well tops generate nothing

G4629: Griding tops and copying geometry from previous resultant grid shows incorrect spacing

Module 7: Near Wellbore Heterogeneity Modeling and Upscaling

G4726: Calculated Kv/ Kh from upscaling results has incorrect "Bottom MD" and "Thickness"
G4724: Plane biogenic structure always displays "radius is too small" and does not work
G4671: Program crashes when adding a fracture set while GSM parent folder is selected
G4655: Overwrite/Create new Generic SBED Model dialogue cannot be accessed after clicking "Do not ask me again"

Module 8: 2-D & 3-D Seismic Interpretations

G4998 (Enhancement): Add function in 'Measure distance' tool to measure orientation and dip on seismic section (including arbitrary section)
G4670 (Enhancement): Add dB display option on all spectra plot
G3689 (Enhancement): Add option to snap to Peak/Trough/Zero crossing for both the synthetic and seismic trace when creating tie points in seismic well tie
G4978: Automatically set the T-D curve as active when switching the T-D to a different seismic survey
G4966: In the "Input" logs for generating synthetic seismic traces, record the upscaled version, but not the original version of sonic and density logs
G4963: Use 0.5 and 99.5 percentile as the default min, max value for the color display and visualization min max range of reflection coefficient track
G4909: Horizon Constant (Top or Bottom) tracking does not work for 2-D auto tracking mode
G4897: The created boundary is not correct based on horizon
G4729: Create arbitrary seismic section in depth domain and sometimes time domain section appears
G4657: Deactivating velocity model from Well folder does not work
G4643: The ‘Out of data volume range’ error shows up when activating velocity model for a well that is partially within the velocity volume range
G4552: Amplitudes of synthetics vary so big between two similar wells
G4395: Horizon picking is not working if snap is “None” and amplitude limit is used

Module 9: Volume Interpretation and Advanced Visualization

G5008: Geobody tracking in depth volume is wrong if using two horizons as constrain
G4843: Interactive tracking geobody controlled by horizons in depth seismic volume is not working

G4595: Converting to facies volume from geobody, the results look not correct
G4510: Improve fault extraction speed
G4469: Progress bar of geobody tracking is not accurate: it is very slow for the first 2% and then quickly ends up
G4442: Include 'Stick Type' output option when converting multiple Fault Points to Fault Sticks

Module 10: AI for Seismic Interpretation

G4429 (Enhancement): Be able to overwrite or keep old labels when converting facies volume to AI labels
G4218 (Enhancement): Be able to submit different sets of labels under the same volume to different label folder
G4577 (Broken): AI model is not generated on AI tree after training and exporting AI model shows empty
G5076: The size of the AI model drop down is too small to tell model names apart very well
G5072: Change the default AI horizon sequence name
G5024: Converting a time slice fault stick set to label only outputs one slice label and lost others slices
G4912: Program crashes when training on horizon label on 2-D data if the labeled sections have some horizon label missing
G4911: Duplicating AI folder which contains 2-D horizon prediction causes crash
G4877: Add more parameters to merge different direction's fault probability
G4830: Display horizons on base map when labeling horizons on inline/ crossline/ arbitrary lines
G4828: Display "AI Labels in the AI database" in the training label box
G4825: Extract horizons from sequence volume, the extracted horizon does not record calculation parameters
G4801: Training option base model for training is not correct when in training or after abort the training
G4761: Mode filtering for prediction RBM is not visible if label is checked
G4723: Not able to export facies AI model
G4675: Corrupted order of horizons when extracting horizons from predictions
G4612: Copy the trained model to the duplicated AI folder when using "Duplicate" command on an "AI Folder"
G4504: Need to convert AI model in old format (.gam) to the new format (.sam) for old users
G4482: Auto extraction of horizons from AI predicted facies volume is not working for depth volume
G4393: Unable to convert 2-D horizons to 2-D horizon labels
G4083: The conversion from horizon to label is not successful if the horizon is not complete

Module 11: Seismic Attribute Calculation and Interpretive Processing

G4804 (Enhancement): Support multiple horizons interpolation and image filtering
G4296 (Enhancement): In facies filtering add option to remove cluster with number of samples less than certain values
G4824: Make the output volume name consistent after 3-D filtering
G4823: The calculation parameters are not recorded in facies filtering

G4654: Using Gaussian filtering in image enhancement and filtering, the defined window size used in the calculation is not consistent with the one user defined
G4640: PCA is not available for some imported, merged or calculated seismic volumes
G4603: Move "RMS amplitude" into the Attribute Calculation from Image Enhancement
G4218: Spectral decomposition is not allowing the correct output frequency range

Module 12: Seismic Attribute Analysis

G4430 (Enhancement): Option to highlight back the highlighted data points on the current section within the polygon on the cross plot
G5023: Highlighted points within the cross-plot polygon on seismic section overlap each other
G4627: Top conformable strata-slice should truncate at the boundary
G4382: Cross plot filter settings are not retained in Calculation Parameters menu

Module 13: Data Analysis

G4596: Data Analysis results (variogram) on well top properties (thickness) are wrong

Module 14: Rock Physics Modeling and Facies Classification

Module 15: Machine Learning for Integrating Well Data and Seismic Attributes

G4994: Unsupervised log classification progress bar is empty
G4837: Add option in multi-realization neural network to compute statistical property from user selected realizations rather than from all the realization
G4664: Decision tree is not using defined validation and testing data
G4648: The ROC curves do not show when using XGBoost and Random Forest to train and predict facies
G4362: Predicting property grid from machine learning model on strata-grid takes very long time and sometimes crash if cancel the process

Module 16: Geostatistics Integration Workflow of Well Data and Seismic Attributes

G4628: Property modeling of top conformable strata-slice displayed on base map is not correct

Module 17: Production Prediction and Sweet Spot Mapping

G4613 (Enhancement): Add well filter option in production data cross plot
G4554: No machine learning model is generated after training in certain conditions

Module 18: Microseismic Data Analytics & Integration

G4556 (Enhancement): Be able to use the same color to plot the same completion data curve across different stages
G4506 (Enhancement): Improve microseismic window animation performance
G4485 (Enhancement): The microseismic events Y axis color is consistent with its histogram color
G4443 (Enhancement): Performance of microseismic window is too slow

G4658 (Broken): Show legend of color by attribute for microseismic data does not work
G4471 (Broken): “Apply to All” button is missing to select the same well when importing completion data for multiple stages
G4608: Be able to delete whole row in well tag spreadsheet
G4592: Not able to display event density volumes from multiple wells at the same time on basemap within microseismic window
G4543: ‘Stage’ is not in the column name dropdown list when importing completion data and importing completion data with stage as a column sometimes causes program freeze
G4534: Toggle ‘Completion Data’ node on data tree should turn on/ off all stages
G4531: Seismic display is missing in base map view and section 1 after restoring microseismic window
G4530: The animation speed does not retain after changing if stopping and replaying the animation
G4528: Performance is too slow when displaying several well tops with labels in microseismic window
G4517: Renaming object name of completion data makes the axis disappear
G4488: Date time axis is broken after zooming in on time series window too much
G4486: Default date time range should include all microseismic events on the time series window
G4472: Control visibility from well group is missing from 4-D microseismic window
G4461: Microseismic shallower points should overlap deeper points on base map view
G4448: Microseismic events Y axis scale does not retain on time series window after restoring the microseismic window
G4444: Make better default settings for layout of time series window Y axis
G4437: Color microseismic points by attribute and hitting ‘apply to all’ should also apply the color map and display range
G4419: Changing interval for microseismic events histogram should reset its Y axis data min and max unless it is locked
G4403: Importing microseismic events should use Z as primary depth instead of TVD

Module 19: Static Reservoir Modeling

G4999: It takes too long for 3-D simulation of properties

Module 20: Rule-Based Modeling of Stratigraphic Architectures

Module 21: Synthetic AI Labels for Model Training