

Completed features/changes beyond v5.11; post Sep-2015 User Manual

SES v5.79 Release Notes (2021-09-14)

SPECIAL NOTICE: This edition adds a new **portable license format** option called **internet**, which operates like floating-network/machine-specific licensing but requires neither local area network server nor recurring manual activation or file downloading.

1. (5.79) Main|License: introduce internet license format option for ultimate portability/sharing/auto-activation/hardware independence
2. (5.79) Main|License: add internet license check-out feature to enable licensed use without internet access for up to nine days
3. (5.79) Main|License: make internet license fully compatible with Wi-Fi internet access and multi-WAN IP switching
4. (5.79) Main|License: add toggle button to request/disable internet licensing on demand (stored user setting)
5. (5.79) Main|License: add command button to obtain internet license seat-status information
6. (5.79) Main|License: add independent Linux cloud servers dedicated to internet licensing
7. (5.79) Multiple: make license check-out duration a stored user setting (floating-network; internet)
8. (5.79) Multiple: enhance automatic license seat release (floating-network; internet)
9. (5.79) Multiple: various improvements and minor bug fixes

SES v5.78 Release Notes (2021-07-08)

1. (5.78) XSec: restore MDMin|MDMax dropdown box functionality (bug fix v5.77)
2. (5.78) Multiple: bug fix LAS file importer issue related to Unix format files

SES v5.77 Release Notes (2021-05-27)

SPECIAL NOTICE: This 15-year anniversary edition initiates **new speed** and **efficiency** after **renovation** that took a year to complete.

1. (5.77) Main: introduce familiar Home screen but with left menu buttons to access former Utility screens
2. (5.77) AppRibbon: introduce persistent/top-of-window tabs capable of one-click loading/switching/closing primary screens
3. (5.77) AppRibbon: introduce File Menu ("hamburger menu") for quick access to common Well/file/database commands
4. (5.77) AppRibbon: introduce center caption and images to display selection information and other app-state content
5. (5.77) Main|Options: introduce app startup landing screen control (Main, SES, WELLS, or WELLS|SES; stored user setting)
6. (5.77) Main|Options: introduce graph desk color choice and Survey/Plan digitization step-length controls (stored user settings)
7. (5.77) Multiple: introduce dimmed/transparent underlay window in conjunction with select dialogs, wizards, and tasks
8. (5.77) Wells|SES: introduce split-screen capability with resize slider; Dbl-click slider snaps to presets (stored user setting)
9. (5.77) Wells|SES: add method to set Active Well (Dbl-click Wells' Well Name loads in SES if different; edits Well if same)
10. (5.77) Wells,Grids: enhance to full-window use and improve general clarity
11. (5.77) XSec: bug fix down-sample export skipping output depth stations when MB contains unexpected 3DSB MDStart quantization
12. (5.77) Install: enhance installer to auto-fix Microsoft Office / Microsoft Windows high-dpi monitor compatibility issue (shrunk buttons)
13. (5.77) Multiple: numerous subtle improvements and minor bug fixes

SES v5.76 Release Notes (2020-04-03)

1. (5.76) TL: add feature to set Well's default beds (graph right-click or toolbar; stored user setting)
2. (5.76) TL: enhance feature 'Send Zones to Marker Bed...' to permit changing deepest 3DSB only (graph right-click)
3. (5.76) TL: add command to delete Well's default beds (graph right-click)
4. (5.76) Geosteer: enhance Marker Bed (3DSB #0) initialization by applying default beds when available
5. (5.76) PT2: add command button to copy TVD|MD extents to current associated Cross-Sections screen xsec (upper-right toolbar)
6. (5.76) PT2: add command button to Save bed STYLES (color, line type, fill opacity) to Favorites ('Edit Beds...'; stored user setting)
7. (5.76) PT2: add command button to Restore bed styles from Favorites ('Edit Beds...')
8. (5.76) PT2: enhance bed auto-initialization by applying bed styles from Favorites when available
9. (5.76) PT2: add command button to switch to Cross-Sections screen (main toolbar; shortcut ALT+B)
10. (5.76) XSec: add command button to switch to Loaded ParamTuner when selected Cross-Section is in sync
11. (5.76) PT2: enhance pre-v5.60 (2018-12-10) beds conversion by applying bed styles from Favorites or by improved opacity init
12. (5.76) XSec/PT2: enhance sync of bed color & line-type related settings to further assist transitioning from pre-v5.60
13. (5.76) Util: add background user database compact/repair upon manual SES database compact/repair
14. (5.76) Multiple: various improvements and minor bug fixes

SES v5.75 Release Notes (2020-02-27)

SPECIAL NOTICE: Transferring type **log top picks** from 3rd-party software is now simply **copy** (two columns of data, e.g. Depth|Zonename) and **paste**. Also, copy/paste to re-use same/similar zones on different type logs and quickly fine-tune depths/thicks with a few mouse drags.

1. (5.75) TL: add feature to paste general zone tops from Excel/clipboard into type log dataset (toolbar command button)
2. (5.75) TL: add feature to copy/paste zone tops between any SES type log dataset from any well (toolbar command button)
3. (5.75) TL: enable mouse dragging to edit zone top depths, with auto layer thicknesses re-calc (drag top on graph)
4. (5.75) TL: add feature to 'Crop/Delete Data Outside this Depth Range' (zoom then graph right-click; replaces legacy toolbar command)
5. (5.75) TL: enhance graph when zoomed (adaptive formats, click-dependent shortcut menu functions, Undo-Zoom command buttons)
6. (5.75) TL: add features to more-easily set PAYZONE TOP StratDepth (graph right-click or data point right-click)
7. (5.75) TL: add features to more-easily add new or insert known zone top (graph right-click)
8. (5.75) TL: add features to more-easily edit zone top name (right-click zone top on graph)
9. (5.75) TL: add feature to more-easily delete zone top (right-click zone top on graph)
10. (5.75) TL: add feature to Clear existing zone top names from type log dataset (toolbar command button)
11. (5.75) TL: change zoom-lock toggle default value to TRUE at first zoom-in, with intelligent Undo-Zoom when dataset switching
12. (5.75) PT2: add 'Copy Current Forward' command to auto-copy extents to deeper 3DSBs (left RSD track right-click, RSD Zoom)
13. (5.75) PT2: enhance 'tab' behavior after manual keypunch change to RSD track min|max extents
14. (5.75) Utilities|Witsml: add another connection method for querying WITSML servers (including proxy server support)
15. (5.75) MainMenu: add oil/gas map symbol in footer that links to McClure-Stoner rig charts (updated weekly)
16. (5.75) Multiple: various improvements and minor bug fixes

SES v5.74 Release Notes (2019-12-12)

SPECIAL NOTICE: Any number of MarkerBeds and/or Surveys and/or Plans—including from **offset** wells—may now **digitally** be **projected** into an active well's working local-coordinate TVD vs. MD cross sectional view, via 3D-intelligent vertical section mapping.

1. (5.74) PT2: add MarkerBed/Survey/Plan projection-into-cross-section capabilities with toggle button to enable (cross section toolbar)
2. (5.74) PT2: permit any MarkerBed/Survey/Plan in SES database to be a projection source
3. (5.74) PT2: correctly handle azimuthal north reference variations among projection objects
4. (5.74) PT2: make projections display only VS-overlapping segments of offset-well laterals (including opposing-direction laterals)
5. (5.74) PT2: add command button to load screen to configure projection objects (cross section toolbar)
6. (5.74) PT2: make projection properties Well|Survey-specific (stored user setting), with helpful MarkerBed switching characteristics
7. (5.74) PT2: add line style (solid|dash, thick|medium, dark|light) and label display <toggle options>
8. (5.74) PT2: add projection object display-status feedback, such as missing surface coordinate value detection
9. (5.74) PT2: make projections gray-scaled against colored active MarkerBed to enhance hypothesis comparison/switching
10. (5.74) PT2: change Surveys|Planner screens' 3D viewer mode to not reset when changing SES active well from ParamTuner
11. (5.74) SES: add well-property column 'Well Group' to Active Well dropdown box
12. (5.74) Multiple: various improvements and minor bug fixes

SES v5.73 Release Notes (2019-11-15)

1. (5.73) Multiple: create workaround to buggy Nov 12 Office "Security Update" causing corrupt-query error message during some data update procedures {*update Dec 10: Office bug also now patched by Microsoft*}

SES v5.72 Release Notes (2019-11-10)

1. (5.72) PT2: bug fix potential non-rotated survey annotation text on cross section and small MD gridline-label font size (64-bit SES)
2. (5.72) XSec: bug fix potential bed fill issues (v5.60+)

SES v5.71 Release Notes (2019-10-23)

1. (5.71) PT2: detect changed Survey VS azimuth without subsequent/needed re-calcs and/or re-interpolations (v5.70 bug fix)

SES v5.70 Release Notes (2019-10-11)

1. (5.70) PT2: add vertical section (VS) axis atop cross section (uses only 8 net vertical pixels compared to v5.68-)
2. (5.70) PT2: make VS axis major|minor labels and gridlines—which vary non-linearly with MD—adapt to current MD range
3. (5.70) PT2: add VS axis shaded section between survey TD and planned TD, and a terminating line at planned TD
4. (5.70) PT2: convert MD-lock and/or TVD-lock toggles (when used/saved) to MarkerBed-settings from session-settings
5. (5.70) PT2: enhance initial MD|TVD axis extents based on MD-lock|TVD-lock when MarkerBed last saved and other intelligence
6. (5.70) PT2: add new fixed and screen-size-dependent LWD track size customization options (LWD track right-click)
7. (5.70) PT2: convert LWD auxiliary/"Other" display selections to MarkerBed-settings from session-settings
 - a. auxiliary curves selected for display (1 to 8 curves) and display format (stacked or overlapped)
 - b. multi-axes proportion sizes of primary and all auxiliary curves, as user-customized by dragging axis separator bars

8. (5.70) PT2/RTR: bug fix potential issue when determining TD and signal lag depths of LWD2 curves (v5.68+)
9. (5.70) Multiple: various improvements and minor bug fixes

SES v5.69 Release Notes (2019-09-06)

1. (5.69) Multiple: enhance calculation/digitization/interpolation speed after incremental data updates
2. (5.69) Multiple: improve internal aspects related to database stability and integrity
3. (5.69) Install: enhance SES installer to make SES run-time folder a Microsoft Access Trusted Locations member
4. (5.69) PT2: enhance processing life-sign when loading data from disk by animating reload command button
5. (5.69) PT2: change graph desktop color to match other SES 2D mouse-interactive graphs
6. (5.69) PT2: add textbox to display current MD-weighted average 3DStratBlock Dip@DipAzi (net vector magnitude|mode)
7. (5.69) PT2: remove CTRL-key spin button amplifier feature (10x applies, instead of 10x or 30x selection)
8. (5.69) PT2|LWD: change constant line values to post inside-right (instead of outside-right) on LWD graph
9. (5.69) Grids: add command button to one-click-Duplicate a Grid in SES database (Grid Data Setup tab)
10. (5.69) Grids: add command button to clear/delete Grid data records on demand (Grid Data Setup tab)
11. (5.69) Grids: bug fix potential Grid bulk shift issue with large datasets and with two-to-twenty Grid surfaces
12. (5.69) XSec: bug fix potential fill issue on non-MD-filtered VS-mode VS-filtered interval cross sections
13. (5.69) Multiple: various improvements and minor bug fixes

SES v5.68 Release Notes (2019-08-15)

1. (5.68) PT2: add customizable automatic summary table on cross section with toggle button to enable (cross section toolbar)
2. (5.68) PT2: create summary table properties to be Well-specific (stored user setting)
3. (5.68) PT2: add command button to load screen to configure summary table properties (cross section toolbar)
4. (5.68) PT2: add capability to select from 90+ summary table items from Survey/LWD/LWD2/TD/Zone@TD/Stats/THD/CL topics
5. (5.68) PT2: add summary table feature to control each item's display order
6. (5.68) PT2: add summary table feature to include current ending 3DSB's user note
7. (5.68) PT2: add feature to click-and-drag summary table to control its placement on cross section (stored user setting)
8. (5.68) PT2: add textbox to display current associated Cross-Sections' screen cross section (Centerline; LWD2/TD/CL summary items)
9. (5.68) Wells: add feature to one-click-duplicate a Well in SES database (Well Setup tab)
10. (5.68) Geosteer: add feature to import/copy/paste-special MarkerBed from any Well in SES database (toolbar command button)
11. (5.68) Plan: add feature to import/copy/paste-special Plan from any Well in SES database (toolbar command button)
12. (5.68) Surv: add feature to import/copy/paste-special Survey from any Well in SES database (toolbar command button)
13. (5.68) XSec: enhance import/copy/paste-special XSec from any Well in SES database (toolbar command button)
14. (5.68) LWD: enhance import/copy/paste-special LWD from any Well in SES database (toolbar command button)
15. (5.68) Multiple: various improvements and minor bug fixes

SES v5.67 Release Notes (2019-08-09)

1. (5.67) create workaround to an "Office Update" causing memory-related issues on some computers

SES v5.66 Release Notes (2019-07-08)

SPECIAL NOTICE: Background image capability—with optional **geo-referencing** for zoom synchronization—is initiated in this version. For example, if an along-path seismic image helps to convey structural similarities-differences-predictions to your current wellbore, then display it under ParamTuner's working cross section; or display a company logo or general image.

1. (5.66) PT2: add background image display capability on cross section with toggle button to enable (cross section toolbar)
2. (5.66) PT2: create background image properties to be Well|Survey-specific (stored user setting)
3. (5.66) PT2: add command button to load screen to configure background image properties (cross section toolbar)
4. (5.66) PT2: add capability to set background image file, opacity, and placement/position (static or geo-referenced)
5. (5.55) PT2: add click-and-drag geo-referencing calibration of background image for auto/dynamic image resizing with graph zooming
6. (5.66) PT2: add command button to change SES Active Well + MarkerBed (new, upper-right toolbar)
7. (5.66) Multiple: apply interactive graph component update/patch
8. (5.66) Multiple: various improvements and minor bug fixes

SES v5.65 Release Notes (2019-05-03)

SPECIAL NOTICE: Automatic geosteering parameter-tuning guidance is initiated in this version to assist identifying most-likely-in-nature interpretation. ParamTuner attempts to communicate rigorous applications of SES technical geosteering correlation principles.

1. (5.65) PT2: add Undo capability — restore a 3DSB parameter value to when 3DSB became Active (click parameter *last-value*)
2. (5.65) PT2: add shortcuts to Back command button to instead switch to Cross-Sections screen (ALT+Click or ALT+B)
3. (5.65) PT2: add feature 'Ideas' to automatically generate interpretation solution sets the analyst can quickly inspect/consider/revise
4. (5.65) PT2: add three toggle buttons to set 3DSB parameters permitted to be auto-varied (**Dip|TVD|Dip+TVD|MD**End; Ideas toolbar)
5. (5.65) PT2: add command button to 'Get Ideas' (keyboard shortcut CTRL+Spacebar or F6; Ideas toolbar)
6. (5.65) PT2: add keyboard shortcuts for instant Idea search — ALT+D (Dip), ALT+T (TVD), and ALT+E (MD
7. (5.65) PT2: add textboxes to change current Idea (no Enter needed) and to display current total available Ideas (Ideas toolbar)
8. (5.65) PT2: add four command buttons to mouse-navigate Ideas — first/restore-original, previous, next, and last (Ideas toolbar)
9. (5.65) PT2: add keyboard shortcuts to keyboard-navigate Ideas when current-Idea textbox is selected:
 - a. Next Idea — Spacebar, or Right Arrow, or Up Arrow, or +
 - b. Previous Idea — Backspace, or Left Arrow, or DownArrow, or -
10. (5.65) PT2: bug fix auto-copy feature related to Payzone layer thickness change ('Other Settings', Beds)
11. (5.65) Multiple: various improvements and minor bug fixes

SES v5.64 Release Notes (2019-03-26)

1. (5.64) Surv: bug fix potential slow Survey calc in large SES databases (v5.62)
2. (5.64) Multiple: tweak notification durations

SES v5.63 Release Notes (2019-03-22)

1. (5.63) Multiple: introduce fly-in/fade-out notifications for select information messaging

2. (5.63) Multiple: add command 'Last Notification' under menu/ribbon Help|Note to re-display most recent notification from any screen
3. (5.63) XSec: add data export option to include first/shallowest and last/deepest data points regardless of export MD-step frequency
4. (5.63) XSec: change type log(s) displayed on inset RSD track to be governed by '3DSB properties to inherit' of MarkerBed
5. (5.63) PT2: add feature to copy vertical section azimuth (VSA) to Centerline Dip Azi from Centerline tuning screen (double-click VSA)
6. (5.63) PT2: add conditional formatting to Centerline Dip Azi if its current value is not equal to VSA|back-VSA on Centerline tuning
7. (5.63) PT2: add messaging if Centerline cannot be saved because no Cross-Sections cross section is associated to same Survey
8. (5.63) Surv/Plan: to 3D viewer, add 3 user "favorite" display setting groups to restore/create/delete (small "star", "save" buttons)
9. (5.63) Main: add footer "n" button to re-display last SES notification (in case missed or needs re-read)
10. (5.63) PT2: bug fix Status Bar text not updating when moving to different textboxes, after PT2 has been loaded (v5.62)
11. (5.63) Multiple: various improvements and minor bug fixes

SES v5.62 Release Notes (2019-02-25)

SPECIAL NOTICE: Two installers are initiated in this version to support running **SES** on either **32-bit Office** or **64-bit Office**. A current feature loss in SES on 64-bit Office is 3D viewer from Surveys/Planner (that particular graphing object doesn't exist in native 64-bit).

1. (5.62) Sys: convert SES source code to support continuous streamlined development for 32-bit and 64-bit deployments
2. (5.62) Install: enhance SES installer/uninstaller for less clicks and improved processing
3. (5.62) Install: enhance SES installer to support running SES on 32-bit Office or 64-bit Office (Office bit-switching supported)
4. (5.62) Multiple: integrate multiple updated system components for speed, functional improvements, and 64-bit Office support
5. (5.62) PT2: change default smiley toggle button to 'On' when a new from-scratch MarkerBed is created
6. (5.62) PT2: enhance 'Copy/Paste Properties from ... 3DSB' to copy legacy colors into "new" colors if source 3DSB is legacy
7. (5.62) PT2: enhance indication of when Bed properties are being edited in "new" vs. legacy/compatibility mode
8. (5.62) PT2: add selective messaging for when "new" bed colors first become available for application from Cross-Sections screen
9. (5.62) XSec: enhance indication of when "new" and legacy colors are in use for bed fill and bed-tops
10. (5.62) XSec: bug fix display issue on interval cross sections where original-hole TD is much deeper than current/sidetrack TD
11. (5.62) SES: enhance handling when large record count datasets are deleted and prior datasets are renumbered
12. (5.62) Multiple: add messaging/guidance to reduce potential future database corruption from particular manual/user actions
13. (5.62) Multiple: various improvements and minor bug fixes

SES v5.61 Release Notes (2018-12-20)

1. (5.61) PT2: bug fix 'Copy/Paste Properties from ... 3DSB' when duplicate Well names exist in db ('Other Settings', Beds; v5.60)
2. (5.61) XSec: bug fix potential fill issue on interval cross sections (v5.60)
3. (5.61) RPT: enhance zone stats legend to display "new" bed-top/fill colors when applicable on web reports (v5.60)
4. (5.61) Geosteer: restore 'Bed Thickness & Color' tab (v5.60)

SES v5.60 Release Notes (2018-12-10)

SPECIAL NOTICE: Custom **by-bed line type** and **fill color opacity** settings are initiated in this version. ParamTuner (raster output) and Cross-Sections screen (vector output) become more synchronized and both support legacy switching capability.

1. (5.60) PT2: add smiley toggle button to switch between PT2-customized ("new") and legacy display modes (cross section toolbar)
2. (5.60) PT2: add feature and toggle button to display bed fill by-bed or by-constant fill opacity (cross section toolbar; CTRL+Click edits)
3. (5.60) PT2: add feature and toggle button to display new line types and line colors (cross section toolbar; CTRL+Click edits)
4. (5.60) PT2: enhance 'Other Settings' dialog Beds tab to set each bed's top line type, bed fill opacity/alpha with slider tuning + live updating, and new bottommost-bed's base line type and line color (main toolbar; cross section or left RSD track right-click)
5. (5.60) PT2: add Misc tab to set target, survey, and plan line types and line colors, and survey station color ('Other Settings', Misc)
6. (5.60) PT2: enhance bed properties import/copy feature to include selective import of bed names, thicknesses, colors, and/or new fill/line properties, with image/smiley designation of whether source 3DSB has new such properties ('Other Settings', Beds)
7. (5.60) PT2: add toggle button to display offset-beds (cross section toolbar; alternative-to and sync'd-with right-click menu)
8. (5.60) PT2: add toggle button to display bed-fill (cross section toolbar; alternative-to and sync'd-with right-click menu)
9. (5.60) PT2: add toggle button to display annotations (cross section toolbar; alternative-to and sync'd-with right-click menu)
10. (5.60) PT2: add option to color Active 3DSB RSD=0 surface Magenta or its native bed top color ('Other Settings', Misc tab)
11. (5.60) PT2: add option to color non-Active 3DSB RSD=0 surface Black or its native bed top color ('Other Settings', Misc tab)
12. (5.60) PT2: add features to explore slightly revised color schemes that further enhance bed top/fill appearance ('Other Settings', Beds)
13. (5.60) PT2: enhance Beds tab with layer label hot-spot to activate editing (single-click) or initiate new layer (double-click)
14. (5.60) XSec: enhance rendering for smaller PDF file size with insignificant changes in fidelity, and improved processing speed
15. (5.60) XSec: add toggle buttons to show if PT2-customized ("new") XSec-applicable settings are available for the selected MarkerBed
16. (5.60) XSec: add toggle button to apply new bed fill and color settings or use legacy mode (Marker Bed Settings)
17. (5.60) XSec: add toggle button to apply new line type and color settings or use legacy mode (Marker Bed Settings)
18. (5.60) XSec: enhance bed fill rendering such that fill color is identical to ParamTuner
19. (5.60) XSec: add feature and toggles to enable showing major and/or minor gridlines under bed fill
20. (5.60) XSec: change two session/user settings to be stored with XSec (inset map view to scale; permit bed fill over LWD)
21. (5.60) Multiple: enhance select command and toggle buttons
22. (5.60) Multiple: various improvements and minor bug fixes

SES v5.59 Release Notes (2018-07-27)

1. (5.59) Wells: add Advanced Export screen for new Well/Grid data transfer capabilities (button from Export tab)
2. (5.59) Wells: add feature to select specific Wells and/or Grids for export to SES xml file (Advanced Export screen)
3. (5.59) Wells: add feature to copy select Wells/Grids into ANY EXISTING external SES database (Advanced Export screen)
4. (5.59) Wells: add feature to copy select Wells/Grids into NEW external SES database (Advanced Export screen)
5. (5.59) Wells: add feature to Compact/Repair external SES database (Advanced Export screen)
6. (5.59) Wells: change option 'Include Associated Grid Data' to stored user setting (Export tab)
7. (5.59) Wells: change option 'Create copy if Well in SES XML file already exists in SES Database' to stored user setting (Import tab)
8. (5.59) Grids: add feature to vertically translate surfaces (bulk shift GRID TVDss in SES Database)
9. (5.59) PT2: add 'THD re-calc needed' detection and no-click warning message
10. (5.59) THD: enhance calculation speed and bug fix THD display issue when source Survey MD precision exceeds 3 decimal places
11. (5.59) THD: add button to clear calculations on demand

12. (5.59) XSec: change viewing option 'Map View to Scale' to stored user setting
13. (5.59) XSec: add display option 'Fill over LWD' (stored user setting; enables override of change in v5.56)
14. (5.59) Multiple: various improvements and minor bug fixes

SES v5.58 Release Notes (2018-05-24)

1. (5.58) XSec: bug fix metric-unit wells not displaying beds or displaying obviously-incorrect-looking beds (v5.56)

SES v5.57 Release Notes (2018-05-11)

1. (5.57) XSec: enhance processing — faster viewing/exporting and smaller PDF file size
2. (5.57) PT2: add one-click RSD domain curve switching (e.g., gamma <> resistivity <> porosity) and small box icons to designate current curve (reddish filled box) and available curves (open enabled boxes)
3. (5.57) PT2: enhance bed layers on cross section to post to Survey TD when 3DSB MDEnd is set deeper than Survey TD
4. (5.57) PT2: enhance Normalize Mode processing and parameter tuning in multi-curve linear/log format conditions
5. (5.57) PT2: add 'Revert to Defaults' button to Normalize Mode parameter tuning screen
6. (5.57) PT2: bug fix RSD track display issue when tuning Normalize Mode parameters while fixed min|max-LWD applied
7. (5.57) PT2: enhance type log picker to initially display checked type log(s) used during calibration of selected/recalled 3DSB
8. (5.57) PT2: change Centerline interp|extrap line colors to be inherited from Cross-Sections if colored differently than default colors
9. (5.57) PT2: enhance ZoomWindow — work with component vendor to bug fix border sometimes changing width and/or color
10. (5.57) Multiple: apply interactive graph component update/patch
11. (5.57) Multiple: various improvements and minor bug fixes

SES v5.56 Release Notes (2018-04-24)

1. (5.56) XSec: enhance processing — faster viewing/exporting and smaller PDF file size for large datasets (more coming soon)
2. (5.56) XSec: enhance processing — viewing/exporting does not change SESdata.mdb file size
3. (5.56) XSec: enhance display by not drawing secondary objects on top of LWD tracks at MD|VS less than Survey TD
4. (5.56) PT2: improve performance with large datasets
5. (5.56) PT2: change Centerline dip in Driller Dir to show 3 decimals
6. (5.56) RPT: enable access to online help before Report screen authorization is requested
7. (5.56) Multiple: apply interactive graph component update/patch
8. (5.56) Multiple: various improvements and minor bug fixes

SES v5.55 Release Notes (2018-03-23)

1. (5.55) RPT: add info button to access Report help after Report screen authorization is granted
2. (5.55) RPT: create Report screen help content
3. (5.55) RPT: bug fix potential issue related to daylight saving time
4. (5.55) PT2: bug fix display issue when calibrated 3DSBs are later viewed with LWD comprised of different/non-overlapping MD range
5. (5.55) Multiple: various improvements and minor bug fixes

SES v5.53 Release Notes (2018-03-07)

1. (5.53) XSec: enable 'G' license to generate azimuthal image logs ('G&G' license formerly required)
2. (5.53) RPT: improve messaging when connection or authorization fails because of no internet connection
3. (5.53) SES: enhance compact/repair to execute from menu File|Exit from Surveys/Planner/Type Log/etc. when scheduled
4. (5.53) Multiple: various improvements and minor bug fixes

SES v5.52 Release Notes (2018-02-28)

SPECIAL NOTICE: New **online reporting** capabilities are introduced in this version ("RPT"). Such capabilities may augment existing proprietary reporting systems/procedures and/or create new methods of report generation/distribution.

1. (5.52) RPT: add screen to configure and command report content and distribution (accessible from PT2 and SES screens)
2. (5.52) PT2/RPT: add feature to auto-generate PT2 graphs as independent files on disk
3. (5.52) PT2/RPT: add feature to access data inventory snapshot at TD (Survey/Zone/THD/Centerline/LWD/ZoneStats) on screen
4. (5.52) RPT: add capability to preview PT2 graphs in a browser and directly access data inventory snapshot content from a file on disk
5. (5.52) PT2: bug fix MarkerBed selected on Geosteer screen when MarkerBed switched from PT2 (v5.47)
6. (5.52) Multiple: various improvements and minor bug fixes

SES v5.51 Release Notes (2017-11-22)

1. (5.51) THD: bug fix THD table on occasion not immediately updating on screen after re-calc (latter Office versions)

SES v5.50 Release Notes (2017-11-20)

1. (5.50) XSec: bug fix MD-mode bed fill issue when cross section MD-Min is interior to a 3DSB's extents (v5.49)

SES v5.49 Release Notes (2017-11-09)

1. (5.49) Surv: add screen to import Survey data from Excel/CSV/TXT ('XLS') file formats (toolbar button)
2. (5.49) Surv: add Outlook email attachment drag/drop capability to Update or Add a Survey dataset ('XLS' file format)
3. (5.49) Surv: add Windows Explorer file drag/drop capability to Update or Add a Survey dataset ('XLS' file format)
4. (5.49) Surv: add keyboard+mouse shortcut CTRL+click on import-from-'XLS' toolbar button to auto-repeat last import
5. (5.49) Surv: enable well/dataset-specific 'XLS' file import setup as tie-point row selection and MD/Inc/Azi column selection (drag/drop)
6. (5.49) Surv: enable setting vertical section azimuth and tie point coordinates via 'XLS' file import
7. (5.49) PT2: add display of $\Delta VS/\Delta MD$ at current survey TD
8. (5.49) PT2: add color indicator if requesting extrapolation along VSA line in MD domain could be poor assumption
9. (5.49) SES: add 'XLS' data import option within One-Click Update feature (Survey)
10. (5.49) SES: remove disabled/not-applicable toolbar buttons
11. (5.49) XSec: enhance subset/interval-depth-range cross sections by plotting beds to min/max edges
12. (5.49) Wells: change 'Multi Edit/Delete' tab to allow editing/pasting/overwriting Surface X/Y/Z coordinates (formerly locked)
13. (5.49) Multiple: add press 'm' on any mouse-interactive graph to maximize it ('Esc' to normal-size it)

14. (5.49) Multiple: implement workaround to Windows/Office bug — long filename fully displayed when file-open dialog initially loaded
15. (5.49) Multiple: various improvements and minor bug fixes

SES v5.48 Release Notes (2017-09-28)

1. (5.48) Geosteer: allow PT2 to load and auto-initialize 3DSB #0 when current Survey TD is above KOP
2. (5.48) Multiple: further enhance when to selectively-by-point apply 2D-logic over 3D-logic Grid data interpolation
3. (5.48) THD: enhance THD algorithm to further reduce likelihood of inconsequential divergent condition arising during calculation
4. (5.48) 3DViewer: change processor to assume 0 when azimuth north reference set True and grid convergence set null
5. (5.48) Multiple: various improvements and minor bug fixes

SES v5.47 Release Notes (2017-09-15)

1. (5.47) Surv: add Outlook email attachment drag/drop capability to Update or Add a Survey dataset (LAS file format)
2. (5.47) Surv: add Windows Explorer file drag/drop capability to Update or Add a Survey dataset (LAS file format)
3. (5.47) Lwd: add Outlook email attachment drag/drop capability to Update or Add an LWD dataset (LAS file format)
4. (5.47) Lwd: add Windows Explorer file drag/drop capability to Update or Add an LWD dataset (LAS file format)
5. (5.47) SES: add respective heading label to dataset number lists
6. (5.47) Grids: enhance 'Quick Plot 3D' tab to support unlimited data points
7. (5.47) Util: enhance machine-specific license deactivation when performed to resume/check-in a floating-network license
8. (5.47) Util: eliminate occasional machine-specific license activation delay
9. (5.47) Multiple: various improvements and minor bug fixes

SES v5.46 Release Notes (2017-08-18)

1. (5.46) Multiple: enhance Grid data interpolation by applying projected/2D—instead of fully 3D—logic when it makes engineering sense
2. (5.46) Surv/Plan: add map view display of Grid data points and their interpolation-use designation (3D "cross", 2D "square")
3. (5.46) Multiple: various improvements and minor bug fixes

SES v5.45 Release Notes (2017-08-14)

SPECIAL NOTICE: A major feature has been under development for release Q4-2017 {*update Nov 9: Q1-2018*}, hence few updates until then.

1. (5.45) create workaround to a new "Security Update" causing two error messages from Main Menu in some Office versions
2. (5.45) XSec: add a finer MD-step export frequency (0.5-ft/0.125-m) to existing options
3. (5.45) Multiple: various improvements and minor bug fixes

SES v5.44 Release Notes (2017-06-19)

1. (5.44) PT2: enhance advanced cursor tracking mode with ~dozen RSD window size options for RSD-to-MDs graphical inversion (right-click shortcut menu)
2. (5.44) PT2: add feature to copy XSec, LWD track, left RSD track, or right RSD track to clipboard (toolbar button)
3. (5.44) PT2: bug fix Centerline edits not saving to disk if Centerline Description unchanged (v5.43)

4. (5.44) Multiple: improve messaging when imported data file content is not compliant with industry LAS file format specifications
5. (5.44) Multiple: various improvements and minor bug fixes

SES v5.43 Release Notes (2017-05-31)

1. (5.43) PT2: add ParamTuner Startup Defaults Manager to set ~25 default session startup viewing options as stored user settings, including ~15 that selectively by option can be tracked & restored by individual well (top level toolbar button)
2. (5.43) PT2: add MarkerBed Save-As feature (top level toolbar button)
3. (5.43) PT2: add MarkerBed Switch feature (top level toolbar button)
4. (5.43) PT2: add MarkerBed Delete feature (top level toolbar button)
5. (5.43) PT2: add MarkerBed description at screen upper left and allow direct editing
6. (5.43) PT2: enhance large type log / LWD / survey datasets loading speed
7. (5.43) PT2: add Stack display option to LWD Other curves below cross section (right-click shortcut menu)
8. (5.43) PT2: add adaptive LWD track height options when LWD Other curves are displayed (right-click shortcut menu)
9. (5.43) PT2: add capability to change RSD domain curve and LWD Other curves from outer/left RSD and LWD tracks' shortcut menus
10. (5.43) PT2: enhance RSD Zoom options on outer/left RSD track (right-click shortcut menu)
11. (5.43) PT2: add survey inclination & azimuth at MD to cursor text over cross section while ACT enabled (advanced cursor tracking)
12. (5.43) PT2: change toolbar close button to mimic back button, whereby Geosteer screen displayed records are auto refreshed
13. (5.43) PT2: bug fix layer shading not instantly updating after manually keypunch changing Active 3DSB thickness
14. (5.43) PT2: bug fix survey station detail viewing option on occasion displaying/not-displaying as intended
15. (5.43) XSec: enhance LWD curve plotting in VS mode with MD sorting and optional MD range filtering
16. (5.43) UTIL: add optional auto check-for-updates feature and corresponding Main Menu small picture notification
17. (5.43) Multiple: bug fix 3D Grid data interpolation not displaying when such data are fully 2D & parallel to either GridX or GridY axes, and restore Grid data extrapolation capabilities (v5.40)
18. (5.43) Multiple: various improvements and minor bug fixes

SES v5.42 Release Notes (2017-04-24)

1. (5.42) PT2: add capability to TVD bulk-shift GRID data with click-and-drag on cross section (click inside bulk-shift textbox to enable)
2. (5.42) PT2: enhance annotation dodging and restore moveable 3DSB control point annotations by default (right-click shortcut menu)
3. (5.42) PT2: improve life-sign when CTRL+drag to pan or ATL+drag to expand/contract TVD scale limits is in progress on cross section
4. (5.42) LWD: add feature to copy/paste-special LWD properties from other LWDs (toolbar command button)
5. (5.42) XSec: add feature to copy/paste-special Cross Section display settings from other Cross Sections (toolbar command button)
6. (5.42) Multiple: enhance LAS file import 'Thin' option for >32k records
7. (5.42) Multiple: add length unit to graph axis labels where applicable
8. (5.42) Multiple: enhance dialog box command buttons
9. (5.42) Multiple: various improvements and minor bug fixes

SES v5.41 Release Notes (2017-04-01)

1. (5.41) PT2: bug fix error msg being displayed under certain conditions (v5.40)

SES v5.40 Release Notes (2017-03-31)

1. (5.40) Multiple: enhance large dataset graphing speed
2. (5.40) Multiple: enhance GRID data interpolation speed from Surveys/Planner/PT2/Cross-Sections screens
3. (5.40) Multiple: enhance initial screen loading and unloading times
4. (5.40) Multiple: enhance toolbar 'A to Z' dataset sorting speed performed from any SES screen
5. (5.40) PT2: add cross section option to display GRID data surfaces in color/black including over wellbore interpolated and/or extrapolated locations; such extrapolation along plan, azimuth-at-TD line, or vertical section azimuth line (right-click shortcut menu)
6. (5.40) PT2: add GRID data TVD bulk-shift capability
7. (5.40) PT2: add 3DSB attribute...type log(s) displayed during its calibration
8. (5.40) PT2: add 3DSB/RSD-track toggle option to auto-restore type log(s) displayed when its calibration was performed
9. (5.40) PT2: add RSD tracks option to display only RSD signal from 3DSBs calibrated with same type log(s) as the active 3DSB
10. (5.40) PT2: add 3DSB toggle to hide/exclude its RSD signal in other 3DSBs' views and evolving type log calculation
11. (5.40) PT2: add cross section payzone and offset bed layer fill capabilities, with six opacity options (right-click shortcut menu)
12. (5.40) PT2: add zoom window to cross section for another way to adjust MD range, with five height options (right-click shortcut menu)
13. (5.40) PT2: add cross section option to hide all annotations (right-click shortcut menu)
14. (5.40) PT2: add cross section option to hide 3DSB control point annotations (right-click shortcut menu)
15. (5.40) PT2: add cross section option to show general Survey annotations along MD axis (right-click shortcut menu)
16. (5.40) PT2: add cross section options to control multiple gridline settings (right-click shortcut menu)
17. (5.40) PT2: add keyboard+mouse shortcut SHIFT+DbIcClick on cross section to toggle MD lock (recall, DbIcClick toggles TVD lock)
18. (5.40) PT2: change 3DSB control point annotations to fixed from moveable for enhanced performance and easier hotspot dbI-click
19. (5.40) PT2: change 3DSB control point dip/dip_azi labeling to include dip_azi only when dip_azi changes from prior 3DSB
20. (5.40) Surv: add zoom window to VS view for VS range adjustments when zoomed and enhance initial zoomed view
21. (5.40) Surv/Plan: change 'Plot GRID' toggle to perform immediate GRID data interpolation and graph refresh
22. (5.40) Surv/Plan: add shortcut DbIcClick on GRID dropdown box to force requery of its listing content
23. (5.40) LWD: add zoom window to LWD graph for MD|VS range adjustments when zoomed
24. (5.40) Multiple: add rendering option to generate interactive graphs via Direct2D (smoother/transparency-enabling) or GDI (faster/legacy) as stored user setting
25. (5.40) Multiple: various improvements and minor bug fixes

SES v5.33 Release Notes (2017-02-22)

1. (5.33) PT2: add cross section option to display Cross-Sections screen Centerlines (right-click shortcut menu); options include along survey (interp) and/or along VS line at MD beyond current survey TD (extrap)
2. (5.33) PT2: add screen to edit Centerline parameters including 3D-Dip and TVD slider bars, with screen updating while sliding
3. (5.33) PT2: implement Centerline display switching and parameter copy/paste capabilities

4. (5.33) PT2: add toggle button to display Centerline and command button to load Centerline parameter-editing screen
5. (5.33) PT2: enhance Normalize Mode parameter-editing screen command button and move it to RSD tracks toolbar
6. (5.33) PT2: enhance default RSD track views when initially calibrating 3DSB #0 of a new MarkerBed
7. (5.33) XSec: change inset RSD track target depth arrow color from light gray to be inherited from target line color
8. (5.33) XSec: change inset RSD track current survey TD arrow color from black to be inherited from survey line color
9. (5.33) XSec: implement a fix to a Microsoft Access bug that under certain data conditions causes peculiar "connecting lines" or failed print jobs when printing directly from a cross section preview via right-click or Print toolbar button
10. (5.33) XSec: enhance bed label placement when generating an interval-depth-range cross section
11. (5.33) XSec: bug fix display issues when generating an interval-depth-range cross section in VS mode with manually set VS depth range
12. (5.33) TL: enhance sending offset bed thicknesses to a MarkerBed when payzone thickness is indeterminate
13. (5.33) Multiple: enhance data validation and messaging related to proprietary command/toggle buttons introduced in v5.28
14. (5.33) Multiple: various improvements and minor bug fixes

SES v5.32 Release Notes (2017-01-18)

1. (5.32) PT2: enhance default divisor/adder slider bar extent values when calibrating Normalize Mode parameters
2. (5.32) XSec: add sixth "Coordinates, Properties, & Summaries" data export file format option (MDB) to export into respective Microsoft Access tables in the new SESout.mdb, which is automatically created or appended; make last MDB export path a stored user setting; allow for SESout.mdb to be populated simultaneously from multiple SES users and from multiple independent SES databases
3. (5.32) XSec: enhance auto TVDmax on main cross section when TVDmax has not been set
4. (5.32) Bug fix error message being displayed when File|Exit menu used from SES screen (v5.28-5.31)
5. (5.32) Multiple: various improvements and minor bug fixes

SES v5.31 Release Notes (2016-12-12)

1. (5.31) Bug fix THD calc when MarkerBed used for planned TVD/Inc (inadvertently created in v5.30 when calc speed was improved)
2. (5.31) Multiple: various improvements and minor bug fixes

SES v5.30 Release Notes (2016-11-23)

1. (5.30) SES: add One-Click Update feature to auto-repeat multiple data refresh processes and related calculations by well, including datasets Survey (LAS|WITSML), LWD (LAS|WITSML), LWD2 (LAS|WITSML), and THD.
2. (5.30) Multiple: various improvements and minor bug fixes

SES v5.29 Release Notes (2016-10-26)

1. (5.29) Surv: add keyboard+mouse shortcut CTRL+click on import-from-LAS toolbar button to auto-repeat last import
2. (5.29) Surv: add keyboard+mouse shortcut CTRL+click on import-from-WITSML toolbar button to auto-repeat last import
3. (5.29) LWD: add keyboard+mouse shortcut CTRL+click on import-from-LAS toolbar button to auto-repeat last import
4. (5.29) LWD: add keyboard+mouse shortcut CTRL+click on import-from-WITSML toolbar button to auto-repeat last import

5. (5.29) Multiple: various improvements and minor bug fixes

SES v5.28 Release Notes (2016-10-11)

SPECIAL NOTICE: Command and toggle buttons were replaced with a proprietary object to enable improved, originally-intended appearance when run on all versions of 32-bit Microsoft Access.

1. (5.28) Multiple: enhance command button appearance and response to mouse hover/click events
2. (5.28) Multiple: enhance select text-based command buttons with the addition of graphics
3. (5.28) Multiple: enhance toolbar and screen layouts to increase graph and data table size
4. (5.28) Multiple: enhance main form loading and unloading transitions
5. (5.28) Multiple: implement correction to a Microsoft Access 2010/2013/2016/365 bug that shifts/misaligns textbox labels
6. (5.28) Multiple: change color picker popup dialog to display adjacent to its respective palette button
7. (5.28) Multiple: enhance default copying to clipboard of 2D/3D graphs (WYSIWYG)
8. (5.28) Multiple: integrate updated interactive graph component (v6-2006 to v8-2016) for visual and functional improvements
9. (5.28) Installer: enhance uninstaller to remove all SES system files (eliminates former rare need of manual uninstall actions)
10. (5.28) Surv/Plan: add keyboard+mouse shortcut CTRL+click on toolbar copy-graph button to copy vertical section view
11. (5.28) PT2: replace text-based viewing option checkboxes with graphic toggle buttons
12. (5.28) PT2: implement select toolbar button placement based on user RSD tracks' width settings
13. (5.28) XSec: add keyboard shortcut F6 to preview cross section on screen
14. (5.28) Grids: add 'Quick Plot 3D' tab to 3D view a Grid dataset's top surface, including mouse drag rotation and animated rotation
15. (5.28) Multiple: various improvements and minor bug fixes

SES v5.27 Release Notes (2016-04-29)

1. (5.27) Surv/Plan: resolve calculation table and graphs not always appearing updated in some Microsoft Office versions immediately after converting a survey dataset into a plan dataset
2. (5.27) Surv: add Dbl-click on Survey number as another way to refresh directional views
3. (5.27) Plan: add Dbl-click on Plan number as another way to refresh directional views
4. (5.27) LWD: add Dbl-click on LWD number as another way to refresh log track
5. (5.27) Multiple: various improvements and minor bug fixes

SES v5.26 Release Notes (2016-03-18)

1. (5.26) PT2: enhance mouse dragging behavior when changing RSD extents on RSD tracks
2. (5.26) THD: enhance THD algorithm to further reduce likelihood of inconsequential divergent condition arising during calculation
3. (5.26) X-sec: add capability to display well plan beyond survey TD ***in MD domain*** by using SES THD
4. (5.26) X-sec: add capability to display grid data beyond survey TD along well plan ***in MD domain*** by using SES THD
5. (5.26) X-sec: add capability to display grid data beyond survey TD along TD azimuth projection in MD domain
6. (5.26) X-sec: add capability to display grid data beyond survey TD along vertical section azimuth projection in MD domain
7. (5.26) X-sec: add capability to display center line beyond survey TD along vertical section azimuth line in MD domain

8. (5.26) X-sec: add data export option to include all available LWD ("data snap" method — not linear interpolation)
9. (5.26) X-sec: add data export option to create synthetic log curves from all type logs using calibrated RSD ("data snap" method)
10. (5.26) X-sec: add data export option to include digitized well plan by using SES THD
11. (5.26) X-sec: add data export option to include interpolated grid data
12. (5.26) Multiple: various improvements and minor bug fixes

SES v5.25 Release Notes (2016-02-26)

1. (5.25) PT2: add Tune Assist options to inner/right RSD track shortcut menu (TVD no fault; dip copy prior/next, dip vector avg)
2. (5.25) PT2: add Tune Assist options to cross section shortcut menu (remove left gap/overlap; snap to prior; remove right gap/overlap; snap to next; connect prior/next 3DSBs)
3. (5.25) PT2: add cross section option to display offset/stacked layers in color or gray (shortcut menu)
4. (5.25) PT2: add cross section option to set MD range to a fixed preset value ranging from 100 to 5000 (shortcut menu)
5. (5.25) PT2: add RSD Zoom options to outer/left RSD track shortcut menu (undo; landing view; inner+30%; thickX2; thickX3; thickX5)
6. (5.25) PT2: move RSD Zoom options to inner/right RSD track shortcut menu from dropdown box formerly above track
7. (5.25) PT2: add capability to change stratigraphic depth offset to target directly from outer/left RSD track shortcut menu
8. (5.25) PT2: add capability to change LWD min/max override values directly from outer/left RSD track shortcut menu
9. (5.25) PT2: move "custom" graph-specific right-click features to *****top***** of respective shortcut menu (all four graphs)
10. (5.25) Multiple: various improvements and minor bug fixes

SES v5.24 Release Notes (2016-01-26)

1. (5.24) PT2: bug fix issue related to setting Normalize Mode Divisor/Adder values
2. (5.24) X-sec: enhance inset RSD track fault detection algorithm and bug fix "Detect Faults" not being saved when unchecked
3. (5.24) Multiple: various improvements and minor bug fixes

SES v5.23 Release Notes (2016-01-19)

1. (5.23) X-sec: restore tooltips to function independent of focus (inadvertently affected in v5.21)
2. (5.23) Multiple: improve messaging related to conditions suggesting SES_Database Compact/Repair is needed
3. (5.23) Multiple: various improvements and minor bug fixes

SES v5.22 Release Notes (2016-01-14)

1. (5.22) PT2: bug fix issue when 3DSB extents lie entirely within LWD missing data interval
2. (5.22) PT2: enhance parameter calibration algorithms (inner/right RSD track)
3. (5.22) PT2: make click into empty bed layer thickness cell default its value to 1 (Bed Thickness & Color tab)
4. (5.22) X-sec: further enhance general screen refresh behavior
5. (5.22) X-sec: bug fix condition when some Grid dataset layers have all null TVDss values over interpolation/extrapolation area
6. (5.22) Grids: bug fix display not updating screen color after layer color changed when first adding new Grid dataset
7. (5.22) Multiple: enhance display characteristics related to latter versions of Microsoft Access

8. (5.22) Multiple: various improvements and minor bug fixes

SES v5.21 Release Notes (2016-01-06)

1. (5.21) PT2: bug fix inner/right RSD track minimum range extent dropdown box not working when changed manually
2. (5.21) X-sec: enhance general screen refresh behavior
3. (5.21) Multiple: various improvements and minor bug fixes

SES v5.20 Release Notes (2015-12-31)

SPECIAL NOTICE: ParamTuner was **re-coded nearly from scratch** but retains legacy features/look/feel. ParamTuner2 ("PT2") initiates SES geosteering **GENERATION 3**.

1. (5.20) PT2: create significant performance increase when switching/appending/deleting/inserting 3DStratBlocks (3DSBs)
2. (5.20) PT2: add 3DSB number list along screen left side as third method to set Active 3DSB & navigate 3DSBs views with arrow keys
3. (5.20) PT2: allow unlimited interpretation/view changes before performing save to database; respectively enhance Undo capabilities
4. (5.20) PT2: add cross section option to display offset/stacked layers (right-click shortcut menu)
5. (5.20) PT2: add Advanced Cursor Tracking (ACT) mode to auto convert between MD|RSD domains based on mouse location over any graph; with current RSD/MD/VS/TVD/Inc/Azi/N/E/DLS/TVDss text displayed (Dbl-click to copy); with MD|VS conversion at mouse displayed on cross section; use new binoculars toolbar toggle button or right-click any graph to enable/disable ACT mode, and right-click any graph when in ACT mode to freeze all lines and move mouse freely (e.g., to copy summary text)
6. (5.20) PT2: add capability to set/change RSD domain LWD/Type Log curve (new - properties toolbar button)
7. (5.20) PT2: add capability to set/change auxiliary LWD curves displayed under cross section (properties toolbar button)
8. (5.20) PT2: add capability to set/change offset bed thickness/name/color (right-click outer/left RSD track and select "Edit Offset Beds...", or use properties toolbar button, Bed Thickness & Color tab)
9. (5.20) PT2: from Bed Thickness & Color tab click inside a thickness cell and use slider bar to set/change; graphs update while sliding
10. (5.20) PT2: add feature to display well plan beyond survey TD ***in MD domain*** by using SES THD
11. (5.20) PT2: make Dbl-click within general cross section area toggle TVD axis range lock/auto mode
12. (5.20) PT2: add cross section pan capability via CTRL + mouse drag
13. (5.20) PT2: add cross section TVD axis range zoom (in/out) capability via ALT + mouse drag (up/down)
14. (5.20) PT2: change font sizes from window-size-dependent to fixed, with persistent selectable font size options (right-click any graph)
15. (5.20) PT2: add divisor/adder slider bars when calibrating Normalize Mode parameters; RSD track graphs update while sliding
16. (5.20) PT2: add mouse pointer changes when dragging in top half or bottom half of RSD track to resize RSD extent
17. (5.20) PT2: add capability to set LWD signal smoothing window size from dropdown box when smoothing is enabled
18. (5.20) PT2: add auto-copy checkbox option to apply payzone thickness changes (via keyboard or spin buttons) to non-Active 3DSBs
19. (5.20) PT2: add new Sort toolbar button to auto renumber 3DSBs by MDStart when needed
20. (5.20) PT2: make multiple toolbar buttons' enable status need-based (e.g., Gap button enabled if a MD gap exists in interpretation)
21. (5.20) PT2: add keyboard shortcut: Undo (CTRL+Z) - revert to saved
22. (5.20) PT2: enhance viewing options quick-copy (simply uncheck 'Restore Viewing Options' and change the Active 3DSB)
23. (5.20) PT2: enhance execution of auto zoom options of inner/right RSD track and of changing any viewing option

24. (5.20) PT2: enhance plotting of auxiliary LWD curves on stacked axes including curve-specific constants on linear or log scales
25. (5.20) PT2: enhance wellbore plotting between survey stations by using many more minimum curvature interpolated points
26. (5.20) PT2: increase max dip available through mouse dragging to 60 degrees and enhance related algorithms
27. (5.20) PT2: color Dip Azi background red when parameter|wellbore conditions could create high-dip artifacts in low dip environments
28. (5.20) PT2: remove "fast load" concept entirely (obsolete)
29. (5.20) Geosteer: make general cell DbI-click load ParamTuner2 by default; can still load/use old ParamTuner from tab view
30. (5.20) Multiple: various improvements and minor bug fixes

SES v5.14 Release Notes (2015-10-28)

1. (5.14) X-sec: bug fix data export not fully thinning output when certain export frequencies were selected (affected metric-unit wells)
2. (5.14) Multiple: various improvements and minor bug fixes

SES v5.13 Release Notes (2015-10-22)

1. (5.13) Surv: enhance default import LAS file to be Well and Survey dataset specific (including special import settings)
2. (5.13) TL: enhance default import LAS file to be Well and Type Log dataset specific
3. (5.13) LWD: enhance default import LAS file to be Well and LWD dataset specific (including special import settings)
4. (5.13) Multiple: various improvements and minor bug fixes

SES v5.12 Release Notes (2015-09-29)

1. (5.12) MainMenu: create workaround to Microsoft Office 2016 bug causing button images not to display
2. (5.12) Multiple: various improvements and minor bug fixes