

## Completed features/changes beyond v5.11; not discussed in Sep-2015 User Manual

### 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 reporting capabilities are introduced in this version ("RPT"). Contact support to obtain authorization credentials for use. 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 Marker Bed selected on Geosteer screen when Marker Bed 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 new feature has been under development for release Q4-2017 {*update: Q1-2018 as of 9-Nov-2017*}, hence fewer/minor updates until then. The current SES version is released due to a recent Microsoft Windows/Office Security Update causing two nuisance error messages to be displayed from Main Menu in some Office versions when SES is launched. If you can't yet upgrade, know the errors are insignificant and may be clicked-through without issue.

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 Marker Bed Save-As feature (top level toolbar button)
3. (5.43) PT2: add Marker Bed Switch feature (top level toolbar button)
4. (5.43) PT2: add Marker Bed Delete feature (top level toolbar button)
5. (5.43) PT2: add Marker Bed 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+DbiClick on cross section to toggle MD lock (recall, DbiClick 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 DbiClick 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 Marker Bed
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 Marker Bed 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 Marker Bed 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