

DATE: NOVEMBER 1, 2010
PRODUCT: FAST SURVEY
SUBJECT: NEW FAST SURVEY RELEASE
NUMBER: V2.4

Introduction

This release is a new version for FAST Survey. It is an update of the latest version of FAST Survey V2.3.5.4 including several enhancements and bug fixing, and in particular provides support of new products ProMark 100 and ProMark 200 as well as new antennas ASH-660 and ASH-661.

FAST Survey 2.4 application software is compatible with the following devices:

- MobileMapper CE
- MobileMapper CX
- MobileMapper 6
- Juniper Allegro CX
- Juniper Allegro MX
- FT-1
- ProMark 100
- ProMark 200

And with the following external GNSS receivers:

- ProMark500 (S403Gt21 and up)
- ProFlex500 (S242Gt21 and up)
- Z-Max
- Z-Xtreme

Components

The installation program is available on the FAST Survey CD and on the FTP site:

- <ftp.ashtech.com> (folder: /Land Survey/FAST Survey/Software/)

To install FAST Survey on MobileMapper CX, MobileMapper CX, MobileMapper 6, Allegro CX, Allegro MX, FT-1, ProMark 100 and ProMark 200 you must establish a Microsoft ActiveSync connection between your PC and the data collector and execute the respective FAST Survey exe file on your PC. Then follow the instructions.

Registering as a FAST Survey User

The first time you start FAST Survey, you will be prompted to register your license of the software. If you do not register, FAST Survey will remain in demo mode, limiting each job file to a maximum of 30 points.

How to Register

FAST Survey registration is done via the Internet at the following address:

- <http://www.surve.com/Ashtech>

Open FAST Survey on the handheld device and navigate to the EQUIP tab and then to the About FAST Survey choice. Select "Change Registration". You will be required to enter:

- Your company name
- Your phone number
- Your email address
- Your FAST Survey serial number
Hardware ID Number 1
Hardware ID Number 2
- The registration code that the program will generate

After you submit this information, your change key will be displayed and emailed to the address you have submitted. Keep this for your permanent records.

If you do not have access to the Internet, you may fax the above information to (+1) 606-564-9525. Your registration information will be faxed back to you within 48 hours. During this time, you may continue to use the program but with the 30-point restriction.

After you receive your Change Key, enter it and tap OK. You can then create a new FAST Survey job.

Saving your registration in the Field Terminal

After you register FAST Survey on an Allegro CX, you may need to perform a RAM backup or a System Save to be sure your authorization code will not be lost the next time the field terminal reboots. If you cannot find this option on your Start menu, then open the Control Panel and choose RAM backup.

With other devices, the code is automatically and safely saved at the end of the registration procedure (no extra save operation is required).

Languages supported

The following languages are supported with the version 2.4.0.36:

- Chinese
- Czech
- Dutch
- English
- Finnish (on FTP only)
- French

- French Canadian (on FTP only)
- German
- Greek
- Hungarian (on FTP only)
- Italian
- Polish
- Portuguese
- Romanian (on FTP only)
- Russian (on FTP only)
- Serbian (on FTP only)
- Spanish
- Turkish (on FTP only)

New features/Enhancements

- New products supported
 - ProMark 100 and ProMark 200 receivers
 - ASH-660 and ASH-661 antennas
- A specific built provided for a new FT-1 field terminal
- The Ashtech GNSS Toolbox can be launched within FAST Survey while running on ProMark 100 or ProMark 200
- The WAIT indicator - 'estimated time to fixed solution' parameter [in seconds] is provided in Monitor / Skyplot menu (under Quality tab) for L1 RTK users (using ProMark 100 or ProMark 200)

For additional enhancement and new feature please refer to the Carlson SurvCE 2.5 Release Notes section

Resolved problems/Improvements

Please refer to the Carlson SurvCE 2.5 Release Notes section

Known issues

Please refer to the Carlson SurvCE 2.5 Release Notes section

Recommendations

We do recommend uninstall any previous version of FAST Survey including v2.3.5.4 before installing the new version 2.4.0.36.

Carlson SurvCE 2.5 Release Notes

New features/Enhancements

New instruments supported

- Javad: Advanced support for Triumph-1; Added Alpha, Sigma, Delta
- Leica Total Station: TP0x Series, TS30
- Leica GPS: GS09
- GeoMax GPS and ZTS600 Total Station
- Spectra Precision Focus 10
- Ashtech: ProMark 500, ProFlex 500
- Sokkia Total Station: Set-X
- Sokkia GPS: GSR1700 CSX, GRX1
- Pentax W821NX
- CST Berger Total Station
- Hemisphere GPS: Crescent, Eclipse
- NavCom: 2110M, SF3050
- Stonex GPS: S9 GNSS, Orion S82, Orion S86
- Unistrong GPS
- Foif GPS: SGS828
- Foif Total Station: TS238/538, TS630, TS680, TS6800
- AD Navigation GPS: B2-RTKNet, B2-SBS
- Carlson Surveyor+ GPS
- Stonex STS2RP and STS5RP
- Spectra Precision Focus 6, Focus 8
- Nikon Nivo-M and Nivo-C
- Horizon HTS 580
- Leica DNA digital level
- Topcon GRS-1 (Use SurvCE WM6 Portrait HDPI installation.)
- CHC X90 GPS

New data collectors supported

- Psion CE 4.2
- Psion CE 5.0
- Psion WM6
- MB3000 (available in Korea only)
- Leica CS09
- WM6 Portraitview with VGA resolution (this includes the Nomad, Psion WM6, Topcon FC250, Getac)

**Note: SurvCE 2.5 no longer supports WinCE versions less than 4.1*

New languages added

- Korean
- French will be divided into International French and Canadian French

New features

- MAP: Linework details (codes, line type, etc) may now be edited through the MAP screen.
- GPS: Advanced options added for averaging. Data may now be collected by time. User may choose to count only fixed positions towards average total. A text file may be logged containing information for each sample.
- Projections: SurvCE now supports the Finland KKJ coordinate system.
- Resection: After the first reading of a resection, the user can now robotically turn to the next points.
- Resection: The user now has the option to set the angle in the instrument to the backsight azimuth on the first reading.
- Projections: SurvCE now supports the Malaysian GDM 2000 coordinate system.
- For Ashtech ProMark 500 and ProFlex 500, a feature was added in the GPS Utilities section to perform a GPS calibration routine for Malaysia. This option will only appear when the Malaysian coordinate system is selected.
- Feature Code List: Symbols are now supported. Symbols may be assigned to Codes in the Edit and Add screens.
- MAP: Added support for the import and export of *.dwg files. Windows Mobile 5.0 and higher data collectors support *.dwg versions 2005-2009, 2004, 2000 and R14. All other data collectors support *.dwg versions 2004, 2000 and R14.
- Stake Road: Longitudinal pipe data may now be used in Stake Road. Data may be loaded from an ascii file, which may contain description data.
- Import Ascii: From the preview window, the user may now select the last header line and click the "Set" button to establish the end of header lines for the file.
- GPS Monitor/Skyplot: Rising and Falling status of satellite elevation is now shown.
- GPS Monitor/Skyplot: Color is now used to differentiate satellite types.
- Resection/Backsight Check/Set Collection: The user may now switch from target to reflectorless for individual readings. This is done through the pull-down menu in the top left corner of the screen.
- Feature Code List: New option under Special Codes/Settings, "Auto-Detect Code Pattern". When activated, the program will automatically detect code patterns while storing and suggest the next proper code in the pattern.
- New Roding Files Supported: Geopak, LandXML horizontal/vertical alignments and section files.
- Ascii Import/Export: MMH360 file format is now supported.
- COGO/Calculator now offers the options to apply localization and geoid for the Lat/Lon/Hgt to Grid conversions.
- Projections: Added support for Hungarian VITEL 2009 grid projection.
- Projections: Implemented support for Krovak Oblique Conformal Conic projection. Added definition for the S-JTSK system for Czech and Slovakia.
- Projections: SurvCE now supports the Spain ETRS89 NTV2 Grid.
- Backsight: SurvCE now supports observations to multiple backsight points. From Equip/Configure, turn on "Show Advanced Backsight". With this feature activated, the user will now see an "Occupation" tab during backsight setup. This routine may also be used for performing a resection.
- Angle Only Sideshots: Through the Offset feature in Store Points, users may now store angle-only sideshots to the rw5 file.
- Leica and GeoMax Total Stations: From the Occupy/Backsight setup screen, the user can now go to "Confirm NEZ" and select the "Get from Inst" button. This will retrieve occupy and backsight information from the instrument.

- Equip/Localization/GPS: A new option for choosing the interpolation method for geoid files was added. Possible choices are Quadratic, Bilinear and Bi Cubic Spline. Default setting is Quadratic.
- For GPS instruments that support the gathering of necessary information, baseline vector data may now be recorded to the rw5 file for float and fixed positions. These instruments include Altus, Ashtech, Javad, Leica, Septentrio, Sokkia, Stonex, Topcon and Trimble.
- Projections: RDNAPTRANS2008 is now supported in SurvCE.
- Leica CS09/RX900 & GeoMax: Configure Rover now offers "Bluetooth" for CS09 modem connections. Improvements made for RX900 rover radio configuration. Set Radio Channel and Internet Connect/Disconnect now work properly. Antenna selection is offered for the Rover to ensure correct bonding to the right antenna. Direct Dial Connect/Disconnect now implemented.
- Leica CS09/RX900 & GeoMax: Configuring the base through SurvCE is now supported.
- Auto By Interval now has the option to stop recording after a user entered number of points have been recorded.
- Equip/Localization/Points now offers a button at the top of the screen to clear all points in the localization.
- Projections: Portuguese Transverse Mercator (TM06) definition added to list of predefined projections.
- Equip/GPS Base, GPS Rover: Users may now optionally select predefined or user defined antennas for GPS receivers that have internal antennas.
- A new prompt now exists when re-entering SurvCE or powering on a data collector that was suspended while SurvCE was running. If the last connected device was a Bluetooth device, SurvCE will ask the user if they wish to bond to that device or continue without bonding.
- Topcon Hiper GA and Topcon Hiper GB models were added to the selection list.
- Leica Total Stations: Powersearch now supports search left and search right from the joystick page.
- SurvCE now supports a "Generic NMEA" depth sounder option. This option supports the "DBT" and "DPT" messages regardless of the leading characters that precede these tags.
- Remote Elevation: A "B" button was added to allow the user to take a new base point reading from within the routine.
- GPS: Topcon, Sokkia, NovAtel, Septentrio, Altus, Javad - If the static logging status is known, SurvCE will prompt the user to close any open static files when exiting the software.
- The hotlist icon at the top left of the screen now contains a Reconnect item. Reconnect will allow the user to quickly regain communication after losing power or signal.
- Data Collector Internet for GPS RTK: Full Bluetooth support (cable-free!) is now available for Ashtech (ProMark 500 and ProFlex 500), Topcon, Sokkia (all models which support dual Bluetooth), Trimble and Javad. Some limitations may apply based on your data collector's Bluetooth capability.
- Reference (Master) Centerline: The user may now select a reference alignment to receive stake information in addition to their main alignment. This applies to Elevation Difference, Stake Line/Arc, Stake Offset, Stake Slope and Stake Road. Go to File/Job Settings/Stake/Alignment Settings to turn on "Allow Reference Centerline".
- Added NAD83 KY Single Zone.
- MDL Laser Ace: The MDL Laser Ace now supports auto-triggering.
- Total Stations: The most recent point either read or stored in store points will now carry into the offset routine, on all tabs, as the first distance reading.
- GPS Modems: The APN settings last entered are saved as "User".
- Projection: Belgium Lambert 2005 and Lambert 2008 are now predefined in SurvCE.

- Robotic Total Stations: A new option "Track After Reading" has been added in the configuration screen to allow users to opt out of auto-tracking after reading to save battery.
- Laser range finders: Added ability to take an average of readings during Laser alignments.
- Satel/GeoMax Radio: Satel Satelite added support for TrimTalk and Pacific Crest. Now works when already receiving corrections. Use with Geomax radio.

Resolved problems/Improvements

Feature changes

- Road Network Files: Cross section subgrades from Carlson Road Network files are now automatically loaded.
- Set Collection now allows an unlimited number of foresight points.
- When a 2D job is loaded, the user will be prompted with a warning. Default for all new jobs will be 3D mode.
- Option for 6 decimals of precision for Stakeout added. This will only apply when architectural units are not selected.
- Stakeout precision setting will now apply in the COGO/Inverse feature.
- Data Collector Internet: For Ashtech ProMark and ProFlex 500, the Data Collector RTK port selection is now hidden.
- When reconnecting by Bluetooth, the user will have the option to cancel. There will be a longer delay before reconnecting to allow the Bluetooth stack to fully initialize. This will prevent reconnect failures.
- GPS: Changed default GPS tolerances to horizontal 0.1ft and vertical 0.2ft.
- GPS: When positions are lost, the old position data is removed from screen.
- GPS: Changed "Use SBAS" to "Use SBAS (WAAS,EGNOS,etc.)"
- Surveyor+ GPS: No longer showing Amber Surveyor+ LED while logging.
- Surveyor+ GPS: LED blinks every 2 seconds instead of every 3 seconds when receiving corrections.
- Surveyor+ GPS: User is now warned to close log file before changing jobs.

Resolved issues

- Stake Road: When a cross section contains the representation of a divided highway, the cross section is now drawn correctly.
- Audible alerts now work properly on the FC2500.
- Backsight: BR records will properly be recorded in the rw5 file when reciprocal calculations are turned on.
- Sokkia SRX: General improvements were made to communication and speed of communication.
- Equip/Localization/Points: Average residuals displayed now correctly use only points that are turned on in the calculation.
- The rw5 file will now correctly record the transformation as "Rigid Body" or "Plane Similarity" for localizations containing 2 or more points.
- GPS Offset now uses averaged number of readings for "Read GPS" action and no longer attempts a new averaged reading during "Store" action.
- Configure GPS Base by Previously Surveyed Point: SurvCE will now use the last surveyed value for the point ID chosen. Previously, the software would recall the first position in the rw5 for the selected point.
- Projections: Fix for Latitude of Origin in MOROCCO/MERCHICH/Maroc zone 4.

- Sokkia GPS: OmniStar frequencies were updated for current values.
- When processing GPS values from the rw5 file, latitude and longitude values will correctly display in the degrees, minutes and seconds in the results screen.
- File/Job Settings/New Job - "Attach Last Control Data" feature was renamed to "Use Last Control Data" and properly implemented.
- NovAtel OEM4 and Sokkia GSR2700ISX - If an undulation value other than 0.0 is detected in the position message, SurvCE will send a command to the receiver to set it back to 0.0.
- Non-functioning ISP Configure button was removed from Data Collector Internet Configuration screen.
- Auto By Interval: SurvCE will now allow editing of description when storing is paused in by time mode.
- Using the pop-up keyboard when entering Caster information in the NTRIP configure screen will no longer reset the caster name back to <New>.
- Remote Elevation: User now has ability to enter a target height when taking the base point reading. User can now cancel this routine more effectively.
- Raw Processor now correctly accepts no localization for GPS. Previously, if a localization had been loaded for the job, when the user selected no localization for reprocessing, the last localization was used.
- MAP: Remove Arcs command in MAP now allows cut offset as low as 0.1 units.
- Sokkia SRX: SurvCE will now ensure next reading is current after storing a point in store points.
- Robotic/Motorized TS: The resection command will now obey the auto-turn/auto-read settings when taking Face 2 readings.
- GPS: The current NTRIP caster name is now shown in the RTK tab.
- Remote elevation will now measure the distance from the top of the object to the base point (instead of to the prism at the base point). Target height will no longer be set to zero when taking the angle reading of the remote elevation.
- GPS: After the user cancels the action of waiting for the software to "Store when Fixed", the readings from the GPS will continue to update.
- GPS: Used sats now shown in RW5 file instead of total sats.
- Robotic Total Stations: SurvCE will not attempt to start tracking when entering a routine if in reflectorless/target sheet mode.
- GPS: Improved startup when not connecting to instrument.
- When using VOffset values in the Elevation Difference, option Road Design or Road Section, and the Profile was located at a different location than the Center of the road where the Centerline was placed, the elevation computed was not using the VOffset value.
- When using VOffset values in the Slope stake routine, and the Profile was located at a different location than the Center of the road where the Centerline was placed, the elevation computed was not using the VOffset value.
- Ashtech PM500 & ProFlex 500: The configuration screen for the GSM modem is now available again.
- Ashtech GPS: Monitor skyplot: Disconnect/Connect buttons no longer flash.
- All non-Surveyor+ GPS: During NTRIP Connection, the software no longer waits for an incoming correction before closing the progress window.
- Sokkia SRX: Increased timeout on command to change target type.
- Total Stations: Added more default comm options for parity, stop bits, and data len.
- GPS: Now showing Success after modem connects. Responds better to Cancel
- Stonex S9: Internal UHF more dependable

Known issues

Known issues

- For non-Windows Mobile data collectors, when Bluetooth is used and the instrument is not found for bonding, the software may start a loop searching at various baud rates. This loop may be cancelled by the user.
- For projections that use a datum transformation, the .loc localization file format should not be used. The .dat file format may be used successfully. This issue does not affect NAD83 or NAD27 projections.

Miscellaneous

- Feature Change: Data Collector Internet – 38400 baud rate is now supported for this feature.
- Feature Change: GSM Direct Dial – Removed configure options at the base as they were unnecessary.
- Improvement: All DCI GPS – An internet connection in progress can now be cancelled in the Configure DCI dialog
- Bug Fix: Surveyor+ GPS – Startup prompt now uses Simulation when Cancel is pressed.
- Bug Fix: Topcon RTS Driver – Topcon RTS will now have a reading timeout of 60 seconds.
- Bug Fix: FC-200 – The internal Topcon radio is now added back into the radio list.
- Improvement: Novatel/Surveyor+ GPS – Float mode started 15 seconds after RTK messages lost.
- Bug Fix: All DCI GPS – SurvCE now runs at normal speed when DCI connection is lost.
- Improvement: Topcon GPS – Slight speed improvement.
- Improvement: DCI using Data Port will respond faster now.
- Improvement: All DCI GPS – SurvCE will connect to internet if needed when downloading NTRIP bases.
- Bug Fix: All – When storing points within COGO/Calc/Conversion/LLH-Grid, on a data collector, the point name was displayed incorrectly. Now the Point name is shown correctly.
- Improvement: All – Import ASCII points now allows the user to remove the first character from the DESC of the points stored in the ASCII file.
- Improvement: All - Export ASCII points now allows the user to add an optional suffix character to the DESC of the points written to the ASCII file.
- Bug Fix: Ashtech ProMark/ProFlex series – The program now successfully stores a position that was averaged by using a number of readings value greater than 1 for read and store.
- Bug Fix: NavCom 3050 – Localization was not being stored for StarFire Localization.
- Bug Fix: NavCom 3050 – StarFire QuickStart is now being set correctly. Previously, the program was reporting that QuickStart failed because it was more than 25 meters from the current position.
- Bug Fix: Satel Sateline – Improvements made to Satel Sateline driver.
- Bug Fix [Case 44679]: Leica RX1250/CS09/RX900 – SurvCE will now be prevented from automatically starting twice when the unit is powered on. This change will prevent lockups when powering down the data collector or exiting SurvCE.
- Bug Fix: CHC X90 – Glonass is now supported for this receiver.
- Feature: CHC X90 – Data Collector Internet is now supported over Bluetooth.

- Bug Fix: Stonex S82 – Old method of retrieving satellite information now used. This will lead to a more accurate count of used GPS and Glonass satellites.
- Bug Fix: Ashtech GPS – Correct ground elevation will now be used for Malaysian Calibration and CRM point routines.
- Bug Fix: Topcon TS – Topcon total stations will no longer attempt to auto-detect ETX settings if they get no response from the receiver
- Improvement: Surveyor+ GPS – SurvCE will now save settings and exit before trying to run CellModemSetup.
- Bug Fix: Trimble – Satellite signal to noise ratio now correct.
- Bug Fix: Sokkia GRX1 – Added 19200 baud option for Internal Satel.
- Bug Fix: Sokkia SRX – The Sokkia SRX will no longer send the 'C' command, but will instead combine the set target and set prism constant commands into one with the PG command.
- Bug Fix: CHC X90 – External Radios will use Com1. Internal Radio and Modem will use Com2.
- Improvement: Surveyor+ GPS – User allowed to skip Surveyor+ GPS connection when SurvCE starts or resumes.
- Improvement: GPS – More status messages shown before first GPS position calculated by receiver.
- Bug Fix: Sokkia SRX – The Sokkia SRX will now stop all streaming and tracking before sending settings.
- Bug Fix: Septentrio, Altus GPS – Log rates of 15, 30, and 60 seconds now supported.
- New Feature: Novatel/Surveyor+ GPS – SurvCE now beeps twice when transitioning between RTK unverified Fix and RTK verified Fix.
- Bug Fix: Stonex GPS – DNS can now be set to an empty string and replace previous DNS.
- Bug Fix: All – When exporting RW5 to SDR, the program will correctly create the SDR header info, even when the name of the job contains commas (,).
- Improvement: All – GOGO/Inverse now recalls the most recent Display Type used by the user.
- Improvement: Surveyor+ GPS – SurvCE will now store log-static data to a cache and write periodically.
- Bug Fix: Nikon A – Nikon A total stations will now handle GONS.
- Bug Fix: Stonex GPS – Stonex now showing correct battery status.
- New Feature: Stonex GPS – Stonex Direct Dial base autoanswer now supported.
- New Feature: Stonex GPS/Trimble – Now supporting RTCM 3.0
- New Feature: Septentrio/Surveyor+ GPS - "Send File after Config" now available in Base Advanced dialog.
- Text Change: Stonex GPS – Renamed antenna to prevent confusion
- Bug Fix: Stonex GPS – Glonass sats now shown properly in sat view
- Bug Fix: Lasers – SurvCE will now save laser settings before going into the "Align Laser" dialog. This fixes a bug where it was necessary to exit the dialog and come back in before aligning
- New Feature: Stonex GPS – DNS (Domain name server) option added for resolving NTRIP URL to IP address.
- Bug Fix: Trimble/Stonex GPS – Satellites in use are now properly shown in Sat View.
- Bug Fix: Trimble/Stonex GPS – Removed Factory Rest button.
- New Feature: Trimble/Stonex GPS – Disable/Enable GPS sats now supported
- Bug Fix: Stonex GPS – Internal GSM works better with NTRIP now
- New Feature: Stonex GPS – Internal GSM now supports Direct Dial
- New Feature: Stonex GPS – Internal GSM signal strength now shown while connecting.

- Improvement: Topcon GPS – Digital UHF GSM now automatically switched to 115200 baud if at 38400.
- New Feature: Topcon/Sokkia GRX1 – Internal GSM Direct Dial from the base is now supported.
- New Feature: Surveyor+ GPS – GPS logging at 1Hz is now automatic
- Text Change: Surveyor+ GPS – Surveyor+ antenna now shown as a Carlson antenna
- Bug Fix: All – Importing Points from ASCII file is now working correctly even when the Notes stored per point are larger than 25 characters.
- Improvement: All – Import Carlson FLD directly in SurvCE.
- Improvement: All – Allow the use of a unique GIS Features Definition file that could be used in SurvCE instead of separate *.gis file. Compatibility with the old *.gis file is maintained.
- Bug Fix: All – When using Hidden Type GIS Attribute within a feature at the start of the GIS Feature Definition, the values stored in the GIS Attribute Stored File (*.vtt) were incomplete. The last non-hidden GIS Attribute value was set to blank.
- Bug Fix [Case 44751]: All – In Elevation Difference, the button that allows the user to set a Reference Centerline was available even if the option was OFF under Job Settings/Stake/Alignment Settings. Now the issue has been fixed.
- Bug Fix [Case 44634]: All – Importing DXF LWPOLYLINE data from a DXF file was failing if created using software that was writing the width of the polyline at start, at the end, and no elevation. Now the import works correctly.
- Bug Fix [Case 44760]: All – Station EQ was not working correctly in the case when the station typed was identical with the second equation defined by the user. Now the software displays correctly the station value.
- Bug Fix: Surveyor+ GPS – Base now broadcasting corrections and blinks LED.
- Improvement: All GPS – Showing sats used and tracked in dialogs that used to show just one.
- Bug Fix: All – Last Page containing attributes from the GIS Feature stored with the Point or Line GIS Feature was not being saved to the *.vtt file so those values could not be re-called for later Input-Edit GIS data in SurvCE. Now the store process works correctly.
- Bug Fix: All – When using the routine FILE/Feature Code List option "Save As", the program was not storing simultaneously with the FCL data the GIS Feature data definitions. Now the program stores the GIS Feature data definitions also.
- Improvement: All – When Using FILE/Feature Code List option "Save As", the program defaults with the selection dialog to the folder used by the last stored FCL file.
- Improvement: All GPS – Cancel when waiting for position for VRS startup now just skips getting position.
- Bug Fix: All GPS – Increased wait modem times to accommodate slower modems.
- Bug Fix: Topcon/Sokkia GPS – Direct Dial now disconnects before connecting.
- Bug Fix: Sokkia ISX – Direct Dial is working again.
- Improvement: Direct Dial – Direct Dial now showing name and number while dialing.
- Bug Fix: Topcon/Sokkia GPS – Direct Dial is working for GRX1 and Topcon internal GSM w/ Digital UHF.
- Improvement: Topcon NTRIP – Improved connection reporting.
- Bug Fix [Case 43276]: All GPS – GT record now reports proper point ID, start week and start time.
- Bug Fix [Case 43808]: All – LandXML import to CRD was skipping the first point from the CgPoints node if the node was containing a "code" attribute. Now the point gets correctly loaded.
- Improvement: All – Advanced Occupation routine now computes intermediary residuals for individual adjusted target data, re-loads observations from the current rw5 file, computes

residuals for every relative observation in each Face and displays the semi minor and major ellipses of the computed solutions. The routine also has a "Solve" button so the user can pre-compute in advance a solution. The routine now displays the units for the residuals and the normalized residuals values.

- Bug Fix: All – Advanced Occupation routine now computes correctly the standard deviation of unit weight and the report regarding the unknowns and the degrees of freedom.
- Bug Fix: Surveyor+ GPS – GPS logging reliability and warnings improved.
- Bug Fix: Topcon GPS – Logging support removed until corrected for new firmware.
- Improvement: Novatel/Sokkia GPS – Sat info is improved.
- Bug Fix: GPS – Duplicate points are not stored.
- Bug Fix [Case 44206]: Motorized TS – The auto-turn and auto-read options will now show for motorized instruments.
- Bug Fix: Motorized TS – The advanced occupation routine will now auto-turn and auto-read for motorized instruments if the options are enabled.
- Bug Fix: All – The software checks for characters not allowed, colon ":" and backslash "\", in the names of POINT/LINE GIS Feature.
- Bug Fix: All – If all the GIS attributes on a page are having the new flag "hidden" set, when the page is displayed in Input-Edit GIS dialog, a note was added to let the user know about this case.
- Bug Fix: All – If a POINT/LINE GIS Feature has the flag "In Use" set to OFF, the user will not be prompted to store GIS data.
- Bug Fix: All – When "Code Notes Only are used" during the Point Store routine, none of the already typed and saved Point Notes are displayed in the list. In this way the user can control much better the pre-defined list of Notes used in Store Points.
- Bug Fix: All – Using unique colors per linework now works correctly.
- Bug Fix: All – Auto-Detect Code pattern now works even if the user switches from the current style to "zorro-style" from within the current active pattern.
- Bug Fix: Lasers – Alignment angle will now show in the laser setup screen after an alignment.
- Improvement: Robotic TS – The observations screen in advanced occupy now has a robotics button in the helmet.
- Bug Fix [Case 44639]: Manual TS – SurvCE will now pop up to prompt the user between the F1 and F2 reading of a set.
- Bug Fix: Leica RTS – The wait-cursor will no longer get stuck on the screen after a search.
- Bug Fix [Case 44164]: Leica RTS – If the Leica RTS is tracking and SurvCE loses view of the prism, it will now restart tracking automatically when the prism comes back in view.
- Bug Fix [Case 43288]: Peripherals – SurvCE will no longer warn of a port conflict for depth sounders, light bars and lasers when GPS is connected by Bluetooth.
- Bug Fix: Surveyor+ GPS – Improved accuracy of reported used satellites in sky plot and info table.
- Bug Fix: All TS – Going into "robotics" from the resection screen will no longer cause the previously selected point to be reverted to old data.
- Improvement: All – When using the OSNAP feature for entering coordinates in a selection screen, the program will now default to the last used OSNAP value.
- Improvement: All Total Stations – The remote benchmark routine will now prompt for point protect instead of automatically overwriting point values.
- Bug Fix: All GPS – Data Collector Internet delivers RTK data to receiver with improved consistency.
- New Feature: Surveyor+ GPS – Update Surveyor+ GPS firmware in the GPS Utilities window.

- Bug Fix [Case 42122]: All Total Stations – The set collection routine will no longer show corrupted data for backsight direct or reverse point numbers.
- Bug Fix: All – In Total Slope Stake Report, the percentage and ratio was displayed using an extra semicolon and extra percentage character. Now the display has been corrected.
- Improvement: All – COGO/Station Store now supports multiple points being stored.
- Bug Fix: Surveyor+ GPS – The "Successful Connection" message will no longer freeze on the screen when reconnecting after a suspend while in the store points screen.
- Interface change [Case 44184]: All Total Stations – Point Offset now lists in/out before left/right.
- Improvement: All – COGO/Station Store now supports the same types of offsets (skew, intersect, bisect, etc) as the regular STK Line/Arc routine.
- Improvement: All – COGO/Station Store now supports the use of a Vertical Alignment to compute the elevation for the station stored.
- Improvement: Sokkia GRX1 - Sokkia GRX-1 UHF radio now defaults to 38400 to match factory default.
- Bug Fix: Topcon/Javad/GRX1 – Reset and Hard Reset by cable are improved.
- Bug Fix: Sokkia GRX1 – Internal modem does not need to re-connect as often.
- Improvement: Sokkia GRX1 – Aux firmware version now shown after main version in Info dialog.
- Bug Fix [Case 43676]: TS – Total station scale factors will now obey the "use last job localization" setting in Job Settings.
- Bug Fix [Case 43676]: TS/GPS – Total Station and GPS scale factors will now respond correctly when the "use last job localization" setting is changed in job settings
- Bug Fix [Case 43314]: Total Stations – SurvCE will now properly save and recall the setting selected for backsight mode.
- Bug Fix [Case 43506]: Total Stations – SurvCE will resume tracking after a reading in stakeout.
- Translation: French-Canadian – The French-Canadian translation has been updated.
- Bug Fix [Case 43488]: All – Horizontal offset, vertical offset and draw rectangle codes will no longer interfere with Action Codes that begin with similar characters.
- Bug Fix [Case 43488]: All – Stakeout Point: Using the option Point By Direction, after storing the STK point and pressing the button "Continue" the software will not interrupt the continuous readings received from the instrument.
- Bug Fix [Case 43488]: All – The routine Zoom Extent now works correctly when used from within Store Sections/Alt+M.
- Improvement: Novatel/Sokkia/Surveyor+ - An asterisk (*) will now be displayed next to Float/Fixed text when the Novatel solution is not verified.
- Improvement: Surveyor+ GPS – When exiting SurvCE or starting GPS Utilities, user can decide to continue static logging.
- Bug Fix: Surveyor+ GPS – Improved use of external ports for Radios/Modems.
- Improvement: Base GPS – User no longer has to acknowledge base IP and port dialog when configuring the base.
- Bug Fix [Case 43611]: All GPS – Alaska SPC Zone 5 and Zone 4 1 deg gap. Zones should overlap 1 deg. With each zone being 5 degrees. Zone 5 was only 3 degrees.
- Bug Fix: NavCOM GPS – Starfire 2D is now shown as SF Dual and SF Single.
- Bug Fix: LOG STATIC GPS – Alphanumeric point ID's are correctly displayed and stored.
- Bug Fix: Robotic TS – SurvCE will now start tracking when entering the Slope Stake routine
- Bug Fix: Robotic TS – SurvCE will now resume tracking and updating positioning information when Next is selected in stakeout.

- Bug Fix [Case 43123]: All – Field 2 Finish now allows the MSDOT Geopak coding style use of continue line action code, even when the code separator it is a comma.
- Improvement: All – SurvCE now supports under Road/Utilities/Profile Conversion, Import Vertical Alignment Data from Geopak report profile files.
- Translation updates for Portuguese and Spanish.
- New Feature: Surveyor+ GPS – LED blinks when receiving data from external radio/modem.
- Bug Fix: Novatel/Sokkia/Surveyor+ - Turnning GGA off for Novalel radio port if not needed.
- Language: Dutch – The dutch translation has been updated.
- Language: Romanian – The Romanian translation has been added.
- Bug Fix\Enhancement: GPS – Satellite View now waiting for valid data before first display.
- Bug Fix [Case 42856]: All – Loading a survce.ini files from version 2.09 will no longer cause a crash in the current version of the software.
- Language: German – The German translation has been updated.
- Bug Fix: All – Export to CR5 from the Import/Export ASCII routine will no longer write ASCII characters to the binary file.
- Bug Fix: Novatel/Sokkia/Surveyor+ - Added Novatel antenna for Surveyor+ GPS.
- Improvement: Novatel/Sokkia/Surveyor+ - Putting asterisk (*) next to Float/Fixed text if Novatel solution is not verified.
- New Feature: Novatel/Sokkia/Surveyor+ - SBAS (WAAS) solutions now an option in the Receiver Advanced dialog.
- Language: French-Can – The French-Canadian translation has been updated.
- Bug Fix [Case 42865]: Nikon TS – It is no longer a requirement for Nikon total stations to be set to Horizontal angle mode. SurvCE will now work with zenith or compass settings.
- Bug Fix [Case 43132]: Nikon TS – Nikon drivers will no longer change the prism constant when the prism icon is pressed, if the driver does not support prism constants.
- Bug Fix [Case 42954]: Leica Direct TS – Leica total stations will now set the correct prism constant when in reflectorless and backsight mode.
- Improvement: All – In FILE/MAP we are now allowing for exporting a Surface Data File (TIN/FLT, GRD) to a LandXML file.
- Bug Fix: All – Export to SDR of a CRD file, through Data Transfer was corrupting the exported data. Now it does the export/sending of SDR data correctly.
- Bug Fix: All – For Survey/Set Collection routine, the next station ID will default to the next available point ID not used from the current Job.
- Improvement: All – SurvCE now supports the most recent .dxf file format available on the market.
- Bug Fix [Case 42902]: Sokkia SRX – The software can now set horizontal angle on the Sokkia SRX when entering setup through the Tripod icon.
- New Drivers: South NTS350/360 – South NTS 350, NTS 350R, and NTS 360R are now supported.
- Bug Fix [Case 47284]: Topcon Direct – Topcon direct will no longer beep every 5 seconds after waking up from a suspend.
- New Feature: Novatel/Sokkia/Surveyor+ GPS – SBAS (WAAS) solutions now an option in the Receiver Advanced dialog.
- Bug Fix: Novatel/Sokkia/Surveyor+ GPS – Sat on/off dialog now working better.
- Bug Fix: GPS DCI – Data Collector Internet now works with WiFi and ActiveSync.
- Bug Fix: GPS – Grid to Ground values saved in ini file correctly now.
- Bug Fix: Total Stations – Starting from suspend now works better for Total Stations.
- Improvement: GPS DCI – Network Disconnect button now asks if modem should be disconnected.

- Improvement: GPS DCI – Modem connects automatically after power cycle now.
- Bug Fix: GPS Logging – Deleting Log file now shows correct name
- Bug Fix: Surveyor+ GPS – Warning shown when exiting SurvCE and going into GPS Utilities that log file will be closed.
- Bug Fix: All GPS – Receiver and RTK tabs are no longer shown in Store Points Configure Dialog. This was causing Configure to start slow.
- Bug Fix: Surveyor+ GPS – Improved GPS Logging
- Improvement: Surveyor+ GPS – Position LED now shown on startup, Configure Rover, Cancel Rover, and after GPS Utilities
- Bug Fix [Case 42975]: Ashtech PM500 – Internal PDL radio now supports multiple over the air baud options when protocol is set to "Ashtech". Previously, over air baud was set at 4800.
- Bug Fix [Case 42728]: NMEA GPS – Full buad rate list is now available.
- Bug Fix [Case 42700]: Leica RTS – The Leica will stay tracking even if the prism is blocked briefly as long as "search on lost lock" is enabled.
- Bug Fix: Leica RTS – The Leica will go to a tracking state after a shot when "track after reading" is turned on.
- Bug Fix: Surveyor+ GPS – Improved reliability, progress bar and cancel when starting Surveyor+.
- New Feature: Novatel/Sokkia/Surveyor+ GPS – SBAS (WAAS) solutions now enabled
- Bug Fix: Surveyor+ GPS – Improved logic for DCI to bring up Juniper cell config tool.
- Text Change: GPS – For GPS receivers that do not report RMS values, no values will be shown in the GPS Average report.
- Bug Fix [Case 42498]: Leica GS09 GPS – Configure Base now works correctly.
- Bug Fix: Allegro MX – The software will now recover from a suspend smoothly while in the MAP screen.
- Bug Fix: Topcon RTS – Topcon RTS will no longer stop tracking to take a configured reading. This improves reading time, and tracking consistency.
- Bug Fix: Topcon RTS – Topcon wait time now works according to setting
- Bug Fix: GPS – Now avoiding the "Unable to open port" message in Configure DCI when port combo is hidden.
- Language: German – The German translation has been updated
- Bug Fix: Leica TS – Leica total stations will now report the correct status in the "robotics" tab.
- Bug Fix: Total Stations – Resection will now be calculated correctly in when scale-factor and/or C&R are enabled.
- Bug Fix [Case 33414]: Total Stations – When taking a reverse face reading in reflectorless or angle-only mode, the user will be prompted to manually site to prism, even if auto-read is enabled.
- Bug Fix [Case 30826]: WM5/6 – Disconnect for internet connections is now successful on WM5 and WM6 devices.
- Language: German – The German translation has been updated.
- Bug Fix [Case 37858]: Zeiss Elta – The Zeiss Elta total station will now take angle-only readings.
- Bug Fix: Total Stations – Grid-to-ground scale factor will now only be applied to horizontal distance and will not affect slope distance or elevation.
- Feature: Surveyor+ GPS – SurvCE will now launch the modem configuration program the first time the Surveyor GPS pack is launched and DCI is selected.
- Feature: Surveyor+ GPS – SurvCE will now check the firmware on the Surveyor+ and warn the user if they try to use a GPS pack with firmware not new enough to support it.

- Bug Fix [Case 42617]: Stonex GPS, Trimble GPS – Base Position will now be correctly reported at the rover.
- New Feature: Surveyor+ GPS – LED shows autonomous/float/fixed. DCI corrections blink the LED.
- Bug Fix: GPS – Getting next position instead of cached position
- Bug Fix: All GPS – Port Combo box in RTK tab now keeps correct port.
- Bug Fix: Topcon/Sokkia Internal FH915 and Digital UHF modems – Improved NTRIP and Direct TCP/IP support.
- Bug Fix [Case 41860]: GPS – When loading a localization in Equip/Localization/GPS, if the user's transformation type is set to "Helmert (7 Parameter)", the transformation type will automatically be set to "Plane Similarity".
- Bug Fix: Topcon total stations can now take angle readings.
- Bug Fix: All – Improved Connection icon to only require one cancel and show errors when connection fails.
- Bug Fix [Case 40858]: Trimble 5700 – Base setup improved.
- Bug Fix: All TS – The correct EDM mode will now be written to the raw file.
- Bug Fix [Case 42323]: All TS – The bc_rang variable will no longer be modified when entering backsight routine if no action is taken.
- Bug Fix [Case 39276]: GPS – The "Send file after config" option will now work during base station setup. This setting is remember independently from the base to rover.
- Bug Fix [Case 37468]: Ashtech ZXtreme – Base configuration is now successful in CPD/LRK mode. Previously, if a station ID less than 4 characters was entered, the software returned an error message.
- Bug Fix [Case 42351]: All – When the setting FILE/Feature Code List/Special Codes/Settings/Use Unique LAYERS for Linework is OFF, the program preserves now, correctly the existing layers, present within the current DXF.
- Bug Fix [Case 42313]: GPS – Data Collector Internet now continues working after first fix
- Improvement [Case 30914]: All – When "Use Automatic Description" under Job Settings/Stake option is turned ON, the program will force the automatic description option to be active even when the user switches stake routines or stores staked points. For the case in which the user would like to control this option manually, the check box "Use Automatic Descriptions" under File/Job Settings/Stake must be turned OFF.
- Bug Fix [Case 42002]: The list of stakeout points will now correctly label the source of each point. COGO/Area allows the use of points from the Current/Control Job and also labels the points correctly.
- Improvement [Case 42159]: All – Export ASCII, when Export Attributes ON, allows now to control if the attribute name will be or not be written to the output file.
- Bug Fix: GPS – The correct default antenna type will now be used from the start of a clean install of the software.
- Bug Fix: Ashtech GPS – In GPS Utilites, the "Bluetooth Settings" button will now only be displayed for the ZMax model.
- Bug Fix [Case 42125]: All TS – Taking F1/F2 readings in Remote bench mark no longer leads to error message.
- Bug Fix: GPS Simulation – It is now possible to take average readings when "Always Use This Position" is selected.
- Bug Fix: [Case 42051]: GPS – When creating a one point localization during the base configuration routine, the elevation will properly factor in the base rod height.

- Bug Fix [Case 42051]: GPS – When adding GPS localization points by the "Read GPS" method, the elevation will properly factor in the rover rod height. This bug was introduced in build 2.50.4.
- Bug Fix: GPS – When adding new points for localization by the "Read GPS" method, previously set scale factor and helmert localization parameters will be ignored.
- Bug Fix: All – When Importing a LandXML file in SurvCE on a data collector in portraitview mode, the list of the horizontal alignments found in the file, ready for import was truncating the last line in the list. Now the display issue has been solved.
- Bug Fix [Case 40479]: GPS – SurvCE will no longer reload the geoid file when averaging with prior GPS readings. The currently loaded geoid will be used.
- Bug Fix [Case 41437]: GPS – SurvCE will no longer display an incorrect " symbol after the elevation standard deviation in the results screen when averaging previously stored GPS positions. This text displayed in error only when the coordinate display order was set to East, North.
- Improvement: Sokkia TS – All Sokkia drivers except the 230M and 110M have been updated to new driver format.
- Improvement: GPS – GPS Time stamp for RW5 file. --
GT,PN27,SW1580,ST333222200,EW1580,EW333222200. GT - GPS time, PN point number, SW start week, ST Start time, EW - End week, ET - End time
- Bug Fix [Case 41771]: GPS – SurvCE will now record the geoid separation for all localization points in the .loc file. Users with versions 2.50.4 through 2.50.8 may have experienced shifts in elevation when creating new localizations with a geoid applied. This is now corrected.
- Improvement: Topcon APL1/APL1A – Topcon APL1 and APL1A drivers have been updated to new format.
- Improvement: Nikon TS – Nikon total stations updated to new format.
- Improvement: GPS Simulation – GPS Simulation has new checkbox to repeat same position for testing.
- Bug Fix: All GPS – Background data stream from instrument now still active during long calculations.
- Improvement: All – When using the option to increment stations at a specific interval from station 0.0, and the horizontal alignment contains station equations, the software is now creating stationing at even intervals.
- Bug Fix: All – When changing the options: "Increment From Starting Station" or "Extend Alignments" from within a Stakeout Routine, the software is now saving the values last set. Previously, the settings were saved only if the change was done through the command Job Settings/Stake/Alignment
- Bug Fix: Allegro MX – The Allegro MX will now recover smoothly after a sleep if using the built-in radio.
- Bug Fix: Leica GPS – Now showing battery status again in Monitor/Quality screen.
- Language: Greek Translation – The Greek translation has been updated by the translator.
- Bug Fix: All – In MAP/Point Selection/OSNAP mode, the option, "Intersect and Center" is now working correctly. Previously, there was no solution shown to the user, so point selection using the two OSNAP modes was inactive.
- Bug Fix: All – MAP/Point Selection/OSNAP, Intersection mode has been upgraded to allow the use of any vertexes that are part of a graphic entity to be considered a solution when searching for an Intersection OSNAP.
- Bug Fix: Leica TPS – The "Get From Inst" feature under ConfirmNEZ is now working properly.
- Feature [Case 33932]: Sokkia SetX/SRX – Sokkia SetX and SRX drivers now support backsight prism constant.

- Bug Fix [Case 30580]: Leica 1200 RTS – Leica 1200 robotic driver will now Power Search Left and Right from the perspective of the prism.
- Bug Fix [Case 40342]: Trimble/Stonex – Sats in use are now marked correctly.
- Bug Fix: Leica GSI – If ATR is not available on a particular total station, SurvCE will not try to use that feature, regardless of the setting in the CNF file. This prevents old CNF files from causing bugs in the new drivers with dynamic options.
- Bug Fix: Topcon GSM Modem & Sokkia GRX1 – NTRIP connections improved.
- Bug Fix: Topcon GPS – Bases should now transmit RTCM 3.0 messages correctly.
- Bug Fix [Case 19160]: Leica Builder – Leica builder prism constants now reflect the true 0.0 offset in the Builder, instead of the 34.4.
- Translations: Spanish Version – Spanish translation updated.
- Bug Fix [Case 40643]: Topcon GSM – Improved support for Topcon internal modems.
- Bug Fix [Case 34842]: Leica RTS – Guidelights will now operate according to settings for Leica RTS.
- Bug Fix [Case 41219]: All TS – The backsight screen will make no reference to heights or elevations when in 2D mode. The Backsight point will store with 0.0 elevation when in 2D mode.
- Bug Fix: Leica GSI Total Stations – SurvCE will now set the prism constant appropriately when reflectorless is chosen under the configuration screen.
- Change: MB3000 Data Collector – Location for install moved from "MyDevice" to "Nand".
- New Feature [Case 40952]: Sokkia SRX/SetX – Sokkia SRX now supports humidity input in SurvCE and will calculate the PPM and display it on the Inst tab in Total Station Setup.
- Bug Fix [Case 39511]: All GPS – Localization *.loc files will now store the raw latitude, longitude and elevation. Previously, values were converted from grid coordinates to WGS84 for storing.
- Bug Fix: Robotic Total Stations – Total station will resume tracking immediately after taking a shot in tracking mode in stakeout.
- Bug Fix: Robotic Total Stations – If a reading is taken from locked mode in stakeout, total station will freeze the last reading data on the screen until the user presses either search, store, or track. Then the instrument will continue.
- Bug Fix: [Case 40438] – Leica GSI Total Stations – Leica GSI will now use a prism constant of 34.4 instead of 0.0 for reflectorless readings.
- Bug Fix: Total Stations – Prism constant record is now being written to the raw file for all instruments. Instruments that may have been affected were Sokkia, Topcon, and Leica GSI.
- Bug Fix: All – The setting under FILE/Feature Code List/Special Codes/Settings, "Store GIS Line Data to All Vertices" will create entries in the GIS files for all the points that are part of the line.
- Feature: Sokkia RTS – SurvCE will now detect older firmware (<3123) in a Sokkia and skip some commands and options that are not supported.
- Bug Fix: All – Under MAP/FILE/Export SHP/Export ASCII w/GIS, the linework GIS data associated with a line is now completely exported.
- Text Change: Arwest/Javad Radio – Changed "ArWest 435" to "ArWest/Javad 435"
- Text Change: Novatel/Sokkia – When RTK latency is not available, it is now shown as 999 instead of 0.
- Bug Fix: Topcon RTS – When using optical communication, the Topcon RTS will now properly auto-detect ETX/ETX CRLF setting
- Bug Fix: Topcon Internal Modems – Decreased timeouts for Topcon internal modems to try to improve connect times.

- Bug Fix [Case 40694]: Sokkia Set – Sokkia Set total stations will now maintain their bluetooth connection when using zero hz to target in stakeout.
- Bug Fix: Sokkia SetX/SRX – SurvCE will now correctly set the units for temperature and pressure on the Sokkia SRX and SetX.
- Bug Fix [Case 40258]: Import/Export ASCII will now use the correct sound for success.
- Bug Fix: All – The file cadfileconv.exe deployed with the SurvCE 2.50, 2.50.01, and 2.44.x might hang during the loading/writing of a .dwg file. This will happen only for data collectors, running on a Windows Mobile WM5, WM6 platform. A new corrected cadfileconv.exe file will start being deployed beginning with the SurvCE 2.50.02 version and higher.
- Bug Fix [Case 6275]: Sokkia Internal GSM – Now able to download the NTRIP sourcetable when the Broadcaster dialog tries to connect.
- Feature Improvement: ALL – Show HTML report for Localization. Will prompt user to display HTML format.
- Bug Fix [Case 40337]: Topcon GPS – Now able to update from 2.09 without needing to select Simulation before installing 2.5
- Bug Fix: Novatel/Sokkia GPS – RTCM3 Base now transmits Glonass corrections.
- Improvement [Case 40273]: Topcon GPS – RTCM3 Base now uses more standard messages.
- Bug Fix: DCI VRS – GGA transmission from Data Collector Internet to NTRIP server is more reliable now.
- Bug Fix [Case 39465]: NAVCOM3050 – It was possible for the elevation to be incorrectly derived from the GPS position message. This is now corrected.
- Bug Fix: Leica total stations: The Leica 1100 is now listed as a separate driver. The 300 driver is now part of the 400/800 list.
- Bug Fix [Case 40530]: ALL – When Turn to Point in Stakeout is turned ON or OFF from within the Graphic screen of a Stakeout routine using the Instrument Setup button (Tripod), the button present in the scale bar (used for turning to the Stakeout Point) hides/un-hides according to the instrument setting.
- Improvement [Case 40530]: ALL – In COGO/Manual Traverse, the flag TRAVERSE mode ON/OFF will now be automatically saved and recalled when the routine is used again.