



## LandStar8 Program Update Log

Last update: Thursday, January 11, 2024 7:49 AM

Later versions are at the end of this document.

After the user manual is updated, the changes are listed in black. Changes that have not been completed in the User Manual are highlighted in red.

### 10/17/2023 8.0.3.20231017

1. CAD: Line distance/bearing annotations: If the line is rotated or translated, the label of the line will also change to reflect a possible change in length or bearing.
2. Points > Points to stake > Export: Add a filter function when the stakeout point list is exported.
3. Software settings > GNSS > Survey (tab): Added "Automatic photographing" function toggle. If a Visual receiver (like the i93/i89) is in use, and connected by Wi-Fi, then the cameras automatically fire and store pictures in the job folder for every stored measurement.
4. While the receiver is dialing with the internal GSM modem, LandStar prompts Dailing, please wait...
5. Tools: Area subdivision: New Area subdivision function has been added. Areas with arcs not currently supported.
6. Moved the LSLog and lsbd folders into the primary CHCNAV directory. Previous versions of LandStar placed some logfiles outside of the CHCNAV folder.
7. Modified the style of Surface stakeout panel, it is now similar to machine control

### 10/21/2023 8.0.3.20231021

1. When sharing a project, you can choose whether to share video measurement photos and point-related photos if there are any photos in the project. Warning, this will make huge files!
2. Add Foundation stakeout function.
3. Area subdivision now supports boundary lines with arcs.
4. Supports exporting StarNet .GPS .Dat, Trimble .jxl files.
5. When in simulator or base station mode, prompt the user that real measurement is not possible.
6. In the acquisition settings, added the 'Record GNSS vector' switch. Only when this is turned on will GNSS vector information be recorded. Because when using a Unicore board, LandStar calculates the GNSS vector value, which will reduce the battery life of the handheld controller by 1 hour.

### 10/31/2023 8.1.0.20231031

1. Sort Codes and Layers alphabetically by Name.
2. Fixed import Code bugs.
3. Fixed Code Groups.

10/31/2023

>>> User manual **R510** sent to printers. Reset in US Letter size, many sections have 2-columns which reduced page count from 400 pages to ~280. PDF posted here:  
[https://igage.com/VisualSurvey/ds/LandStar8\\_UserManual.pdf](https://igage.com/VisualSurvey/ds/LandStar8_UserManual.pdf)

11/2/2023 8.1.0.20231102

1. Google Drive added / enhanced
2. Code handling improvements.
3. 3D view Surface editing.
4. Enhanced Instrument profile



11/28/2023 8.1.0.20231128

1. SPCS 2021 (7/7/2023) preliminary NGS release available.

Project (tab) > Coordinate system > From lib > Pre defined > Region = Unites States > Area = SPCS2022 (7\_7\_2023) > then use Filter to enter a unique identifier, like “Utah”:

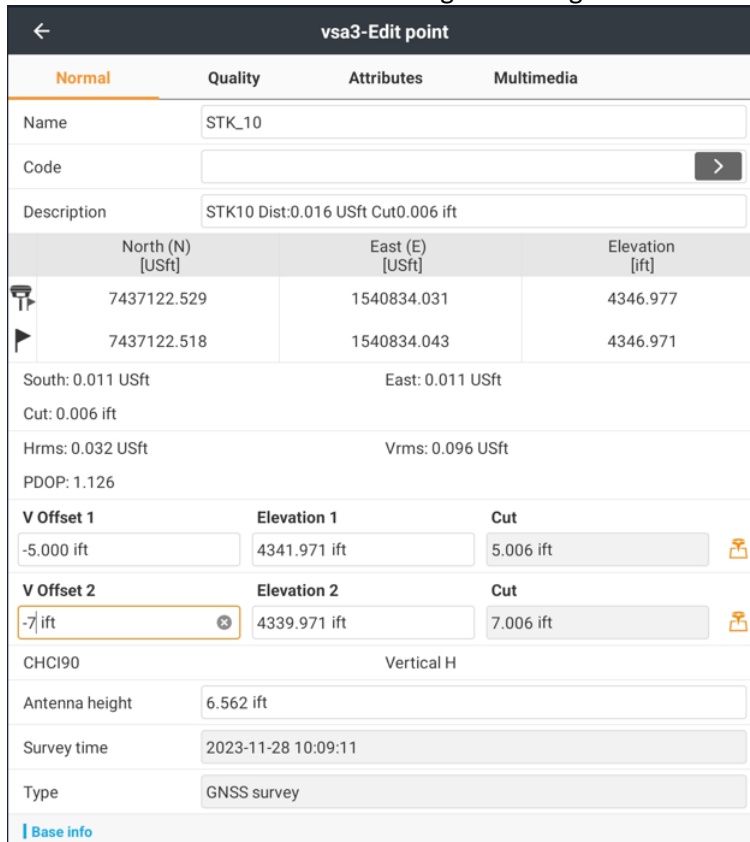
Group	
Region	United States
Area	SPCS2022 (7_7_2023)
Filter	utah
UT_SD_Utah Sevier Desert_491005	<input type="radio"/>
UT_SRS_Utah San Rafael Swell_491007	<input type="radio"/>

2. Added ‘Auto Survey’ for Stakeout.

Auto survey	<input checked="" type="checkbox"/>
Distance limit	0.003 USft
Stop time	2 Second

Staked points will automatically be stored if the distance and stop time limits are met.

3. Added Vertical Offset 1 and 2 when staking for adding inverts:



vsa3-Edit point			
Normal	Quality	Attributes	Multimedia
Name	STK_10		
Code			
Description	STK10 Dist:0.016 USft Cut0.006 ift		
	North (N) [USft]	East (E) [USft]	Elevation [ift]
TP	7437122.529	1540834.031	4346.977
PA	7437122.518	1540834.043	4346.971
South: 0.011 USft		East: 0.011 USft	
Cut: 0.006 ift			
Hrms: 0.032 USft		Vrms: 0.096 USft	
PDOP: 1.126			
<b>V Offset 1</b>	<b>Elevation 1</b>	<b>Cut</b>	
-5.000 ift	4341.971 ift	5.006 ift	
<b>V Offset 2</b>	<b>Elevation 2</b>	<b>Cut</b>	
-7 ift	4339.971 ift	7.006 ift	
CHCI90		Vertical H	
Antenna height	6.562 ift		
Survey time	2023-11-28 10:09:11		
Type	GNSS survey		

It is possible to enter the elevation or the vertical offset. If you move the pole tip from a rim shot, down to the top-of-pipe and click the measure button:



V Offset 1	Elevation 1	Cut
-5.000 ift	4341.971 ift	5.006 ift

LandStar will keep the previous Northing and Easting, load the new elevation and compute the invert distance and Cut/Fill. This is intended to replace tape offsets.

The organization of the point stakeout detail report has been updated to provide a more stake-friendly listing order.

4. It is now possible to dimension a poly-line in CAD. This allows deed entry and automatic distance bearing annotation on the perimeter of a parcel.

5. All Offset Survey and Offset Stakeout parameters are persistent; this can save considerable entry time when offset staking.

6. When LandStar starts, if the previous receiver was connected by Wi-Fi, however the receiver is not already connected, the software will not attempt to connect and force a 30-second Operating System timeout.

7. Various small details and bug fixes.

12/4/2023 8.1.0.20231204

1. Addressed hidden Accept buttons when using GBoard on many screens.

12/6/2023 8.1.0.20231206

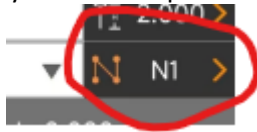
1. RTS Power Search now follows the Remote Control button setting.
2. Accept buttons (the bottom line of most setup and configuration screens) is now visible above the keyboard reducing the need to collapse the keyboard.

12/16/2023 8.1.0.20231216

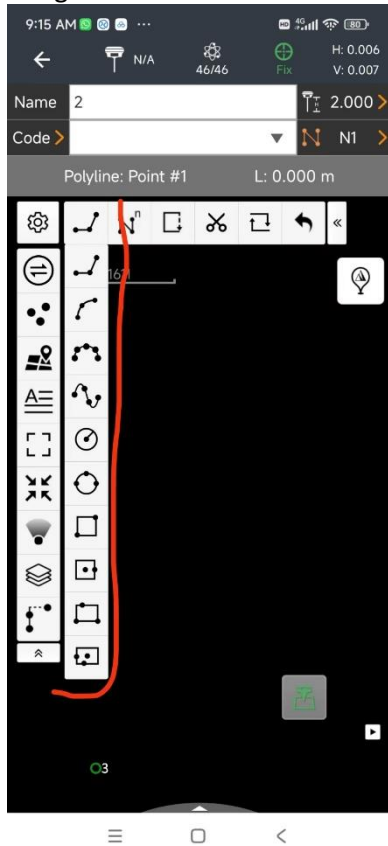
1. SPCS 2022 bugs. Some SPCS2022 zones have updated convergence and grid scale factor computations.
2. COGO input value persistence. COGO functions now remember and restore the previous settings.
3. RW5 file bugs. An arcane antenna parameter formatting issue was fixed. Verified Survey points are now enumerated as averages.
4. Added a lock when user selects Channel 0, the user modified radio frequency. 'unlock' is a super password key, required to change the transmit frequency.
5. Optimized Wi-Fi connectivity issues on reconnect, typically encountered when restarting LandStar and the last receiver, connected by Wi-Fi is not available.
6. Modified Oregon coordinate systems (USA STATE OR), previously 'Oregon Coast Zone' and 'Colombia River West Zone' did not have the Skew angle enabled.

#### Polyline Survey

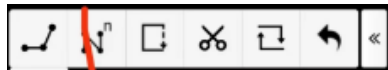
New Polyline and Shape functions in Map Survey. Start by selecting line, right of the Code:



Now, clicking on  will allow selection of the object drawing type:



The flyout items:



multi line survey, with Zig-Zag, Multi-Code, listing, completed



close current polygon



break current polyline (and start a new one)



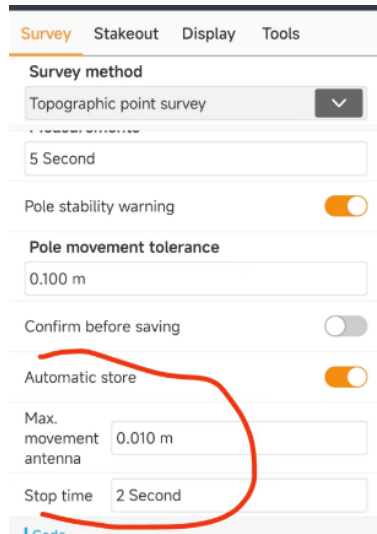
invert (reverse) current line direction



delete previous node

Auto Survey

Under Settings > Automatic store



Max movement antenna, Stop time: If the antenna is held still (less than Max movement) for the Stop time, then a measurement will automatically be taken. This is useful for topo surveying when it is cold and you don't want to take off your gloves. You can move between points, set the pole tip on the ground, then bring the pole nearly level, hold still, wait for 2 seconds. Then repeat.

The Stop time has a minimum setting of 2 seconds.

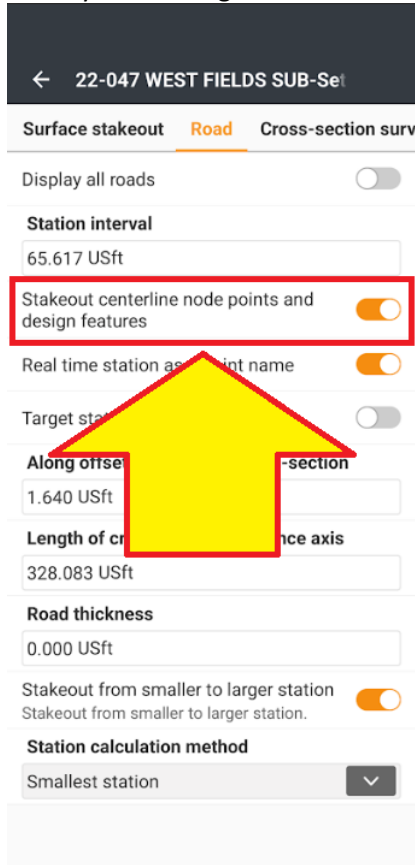
12/16/2023 8.1.0.20231216

The program icon size was reduced to 192x192 to meet new APK Installer requirements introduced in the December 2023 update release for Android 14. Currently affects installation only on Google Pixel 8 and Google Pixel 8 Pro devices.

1/11/2024 8.1.0.20240111

Fixed an arcane issue with significant digit retention when entering a coordinate by Lat/Lon. A hand entered value like 43.2233123456 (DD.MMSssssss) would be reduced to 43.2233123450.

Roading now honors nodes (centerline polyline endpoints) when advancing through stationing. This is controlled by this setting:



Which can be reached from the Main Menu by clicking the Blue Head Person (upper left corner) > Software settings > GNSS > Road (tab) > 3<sup>rd</sup> item from top.