Laser Geo 3D Pile

The Laser Geo 3D Pile offers outstanding capacity and versatility for accurate and efficient field measurement work in different situations, terrains, climates and surroundings. This customized model includes built-in electronic compass, GPS, angle sensor, height measurement functions 1-P, 2P, 3P, and 3D vector, long-range laser sensor, and software application for efficient inventory of timber, woodchip, gravel piles and more with 3D module creation. Your results are swiftly presented in the large external graphic LCD display and internal heads-up display, ready for storage, further processing and transfer.

Use the Laser Geo 3D Pile to

- **Measure piles of timber, woodchips and gravel and other**
- **Obtain your field data with accuracy and precision**
- **Control and calculate volume**
- **Get instant result presentation**
- **Get reports presented within seconds with wireless transfer**
- **Store and process in the instrument**
- **Avoid pacing and climbing in hazard areas**
- **Work without paper and pen**
- **Use in all weather conditions and temperatures**
- **Rechargeable long-life Li-Ion battery**
- **Easy access to measurement modes and menus with field adapted keypad**

The Laser Geo 3D Pile allows you to estimate volume of irregular objects, such as a woodchip piles. Use a non-magnetic monopod for increased stability. Results are presented on large external graphic display and internal heads-up display. Measure, process, store, transfer - all in one compact unit.

Start in one corner of the pile. Measure pile length and several heights for an average pile height. Divide pile in sections if needed. State width (log length), assortment, wood volume factor, and height for each section.

The Laser Geo 3D Pile is adapted for industrial measurement operations, and especially various types of piles and heaps such as irregular heaps of woodchips or gravel.

The possibility to measure distances from 0.5m or 1.5ft with the Laser Geo is a great advantage on industries. Get close-up, accurate measurements without stepping, climbing and pacing in insecure areas.

The Geo instrument laser sensor is of optimal quality and offers accurate results and long measuring range.

An adjustable laser filter allows for flexible measuring, where you can select to measure the closest object, the farthest object or the object that submits the strongest signal.

Easy-achievable and affordable upgrades of software application and possibility to install and work with other applications ensure versatility and great value for your investment.
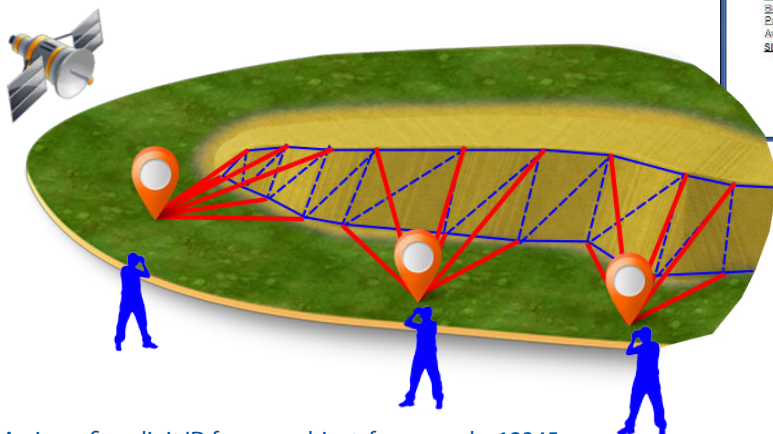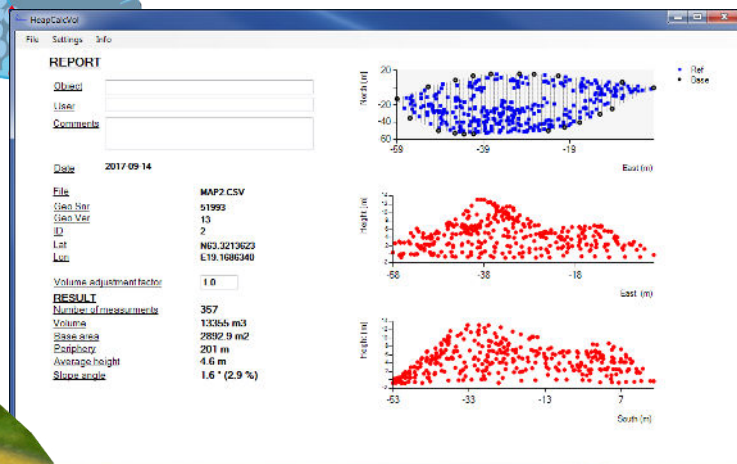
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Use the Laser Geo 3D Pile system to control the size of your inventory. With a series of simple measurement operations, advanced calculations are performed as a one-person and single instrument job. Objects are measured with great accuracy and the total volume is processed, calculated, and instantly presented to you. Results can be stored or transferred to PC or handheld device with USB, Bluetooth, or IR communication. Work with freeware for Windows, HeapCalcVol.exe, provided by Haglöf Sweden. This application evaluates the target data file, and estimates the total area and volume for an area or a heap.
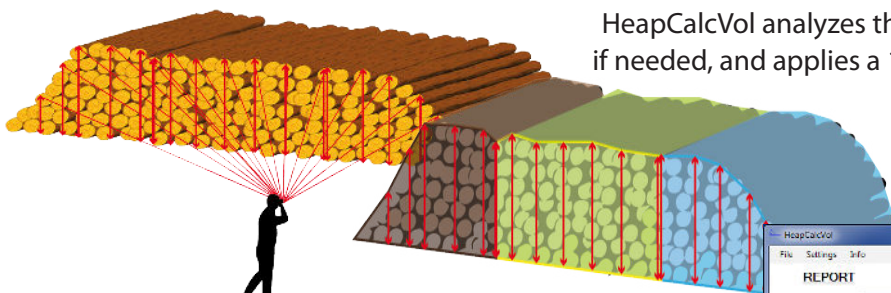
HeapCalcVol analyzes the positions for the base points, tilts up the heap if needed, and applies a 1x1m grid on the heap where the height of each grid point is calculated by the closest reference points using the nearest neighbor method (KNN method).

The pile can be divided into sections. The sum of the sections' length is equal to the total pile length. Measure and register pile width, assortment and wood volume factor for each section. The volume is accounted for with section number, number of heights, arithmetic mean height and volume for the section. Results include arithmetic mean width for all sections, arithmetic mean height of all measured heights and percentage of wood volume for all sections.

Assign a five-digit ID for your object, for example: 12345.
Use the Laser Geo 3D Pile to measure one or more positions.
A GPS-coordinate is saved as first point of reference (GPS activated).
Move to the next reference point and measure several positions.
Use GPS or laser to measure. Data is stored as a CSV-and KML file.

The Laser Geo is a great investment to improve efficiency for different measuring jobs. Measure in open terrain and for distance measuring from 46cm up to 700 m. Use to measure tree heights and canopy, to map areas and trails, to measure terrain slopes, to store and process collected data. The Laser Geo includes built-in GPS and compass, it can be custom programmed, updated, and upgraded.

Laser Geo 3D Pile, packet: Art no. 15-103-1110 Laser Geo 3D Pile, software application to measure piles and irregular heaps of of wood, wood chips, gravel, rocks etc. Store and process data, verify your data, get mean values, volume and more. Packet includes Monopod staff; non-magnetic (Art no. 15-103-1532) Camera-type telescopic monopod with foot bracket, made in brace/ aluminum/plastic material, weight 0,535kg/1,17lb, height 63-179cm/2,06-5,87ft. Mount monopod on Laser Geo 1/4-20" assembly point.

TECHN. SPECIFICATION LASER GEO 3D PILE

Size:	93x63x72mm /3.7x2.5x2.8".
Weight:	243 g/8.6oz.
Battery and consumption:	Rechargeable Li-Ion 3.7V, built-in, approx. 2000 measurings. Charging time max 3.5h. USB mini B interface wall charger 110/220AC/5VDC; car charger adapter 12VDC. Cable USB mini B Male/USB Type A Male, 0.5m. Consumption max 0.9W.
Communication:	Bluetooth® class 2, Spp (serial profile), pincode 12345.
Temperature:	-20° to +45° C/ -4°F-113°F.
Height:	0-999 m/ft. Resolution height: 0.1 m/ft.
Angle:	-55° - 85°. Unit: Degrees 360⁰, Gradians 400⁰, %. Resolution: 0.1⁰. Accuracy: 0.1⁰.
Laser:	Distance: 46cm/1.5ft - 700m/2000ft. Accuracy: 4cm/0.1ft. Resolution: 0.1m/ft.
Shock/Vibration/ Moist/Laser class:	MIL-STD-810E. Housing frame material glass filled poly carbonate, IP67, NEMA6, Laser class 1, 7mm (FDA, CFR21) Class 1m (IEC 60825-1:2001).
Sight:	Red dot sight heads-up display, 1 x magnification.
Display:	Graphic LCD 100x60pixles.
Dataformat:	Nmea or Ascii.
Memory:	Non-volatile. 2000 data sets. Data files CSV, KML, txt.
GPS info	Hostbased multiglobal navigation satellite system: GPS(USA)/ GLONASS(Russia)/Galileo(EU)/QZSS(Japan) SBAS Satellite based augmentation systems: WAAS(USA), EGNOS(EU), GAGAN(India), MSAS(Japan). Built in self generated orbit prediction (Faster TTFF up to 3days).Built in jamming removing. GPS Interfaces Geodetic datum WGS84. Protocol NMEA. NMEA messages: GPS Performance Data: Receiver type 33tracking/99 acquisition channel GNSS receiver. Update rate 1Hz Sensitivity Tracking: 165 dBm Reacquisition: 160 dBm Cold starts: 147 dBm Time To First Fix (All SV @ −130 dBm) Cold starts: 28s up to 15min (open sky) Warm starts: 26s (open sky) Hot starts: <1s (open sky, <2h since last start) GPS Accuracy Automatic Position 2.5m CEP (circular error probable) (50% 24 hr static,130dBm) Speed 0.1m/s (50%@30m/s)* Operation temperature: 40°C ~ +85°C
Other info; accessories etc.	Non-magnetic monopod. Aluminum transport/storing case. See user manual for more details.