



STX-SUITE

GPS satellite technology for piling of wood and metal structures in ground photovoltaic plants



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STX-SUITE is a handy and prompt system for the design of ground photovoltaic plants and the on field positioning of the pile driver machines.

STX-SUITE allows the planning of the best piling pattern directly on the field (survey with GPS + tablet + integrated software), as well as the loading of existing CAD projects (.dwg, .dxf).

Centimeter accuracy positioning is provided by two Stonex GPS receivers (S9, up to 20Hz or S10, up to 50 Hz), installed on a metal frame integral with the pile driver machine structure.

OPERATING STEPS

Two steps make up the Stonex solution for guiding and GPS positioning of photovoltaic plants:

- **Survey and Design:** Preparing of the project in the office and importing of the files on the tablet (.dwg or .dxf format). Alternatively, it is also possible to create the project directly on the field, by surveying the orientation points with GPS and tablet.
- **Guide and Positioning:** Guide the pile driver machine and align it to the row-blueprint by simply following the tablet's indication. Arrows representing the horizontal shifts indicate the right direction for the precise positioning of the hydraulic hammer above the identified spot.

System Components



2 STONEX GNSS RECEIVERS S9 OR S10



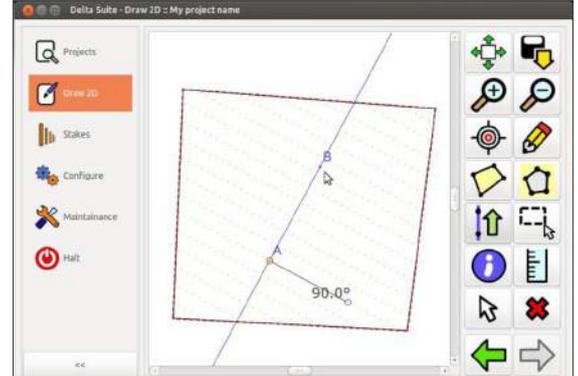
RUGGED TABLET 10" WITH INTEGRATED SOFTWARE

STONEX STX-SUITE

Satellites technology for precise piling solutions

Survey and Design Module

STX-SUITE software is specifically designed for this kind of applications and allows elaborating the survey data (stored with GPS), and create the site project in a very quick and effective way.

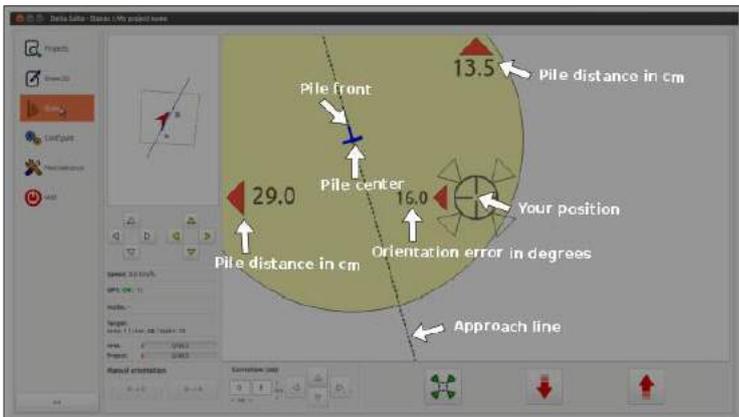


Users can easily design the following aspects:

- Perimeter calculation
- Orientation of the reference row
- Distance between rows
- Distance between piles
- Distance from the border
- Area calculation

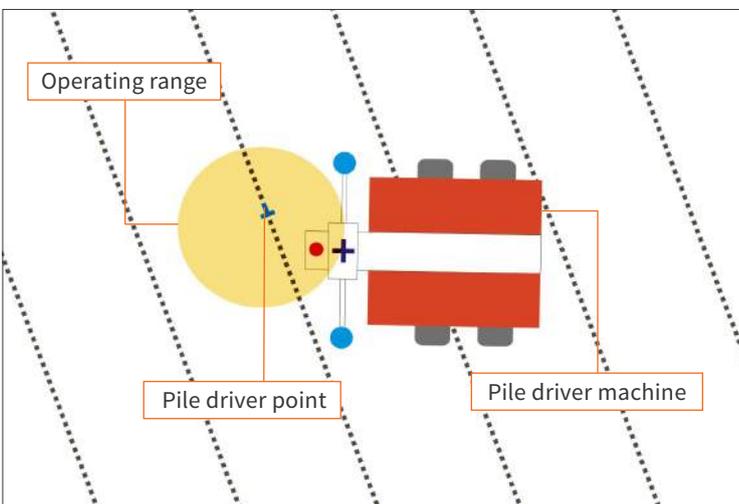
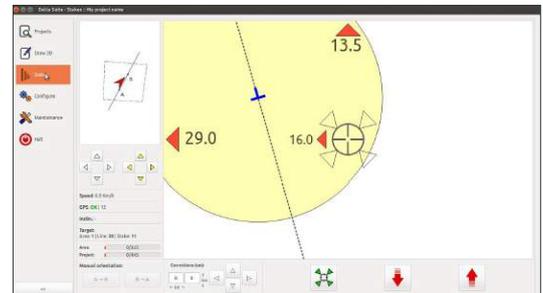
Guide and Positioning Module

The double GNSS receivers system installed on the pile driver machine allows defining the right-left orientation and the guiding direction of the machine with respect to the reference pile.



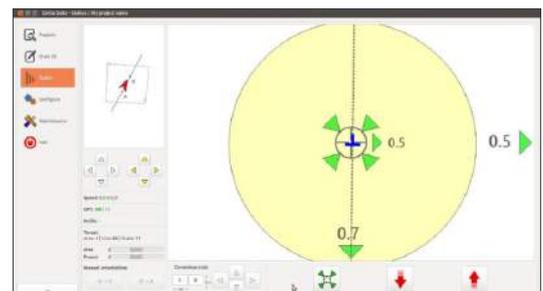
STX SUITE guides the machine on the exact position, by showing bearings and direction on the tablet.

A biaxial inclinometer can help defining the vertical position of the stake during the driving process.



Users have to simply align the machine along the direction of the row and adjust the reference mark (crossed circle) on the position of the virtual pile (blue T).

When the machine position falls within the predefined tolerance, the guiding elements will turn green (green arrows).



About us

Innovation, research and advanced solutions for topography, precise positioning and GPS networks



STONEX® srl is a multinational company, based in Italy (Lissone, MB), designing and manufacturing high precision surveying instruments for different applications: civil engineering, topography, GIS & Mapping, security, transportation and mining. The company runs operations worldwide (today Stonex branded products are used in more than 80 countries) through a high skilled network of distributors and dealers.

Stonex product range includes:

- Total stations
- Field controllers GPS/GNSS
- GNSS/GPS receivers
- Handheld GPS/GNSS for GIS & Mapping
- CORS systems
- Laser Scanner
- Software for GIS, topography and 3D scanning

Stonex qualify for the high quality, accuracy and reliability standard. Stonex is a certified UNI EN ISO 9001:2008 company.



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