





# SPECIAL PROJECTS

Customized Solutions for your Projects



# Special Projects

# Tailor made solutions for your work

Stonex special projects are solutions designed to facilitate field work for different sectors of use. Our solutions can be used on construction sites, for the installation of solar panels or gard rails, to help those working in agriculture. We also develop solutions for the marine sector, where we make monitoring of offshore operations easier.



# What we do

Our job is to design and tailor solutions for you to fit your projects

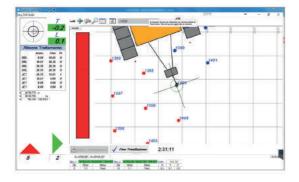


We are a team of engineers specialized in the field of precision positioning that realizes tailor-made solutions to be applied in all projects that require a precise positioning of men and machines.

Our solutions can be applied to different sectors: construction and drillin, photovoltaic piling machines, precision farming, marine operations such as dredging or construction of breakwater barriers.

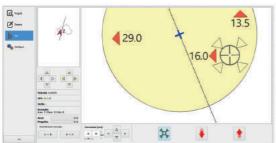
Our experience allows us to understand the customer's needs and develop the most suitable solution for every occasion.

In addition to the hardware we also provide dedicated software to be able to control the system in an easy and intuitive way. With our software it is also possible to carry out the project to follow then in the field.

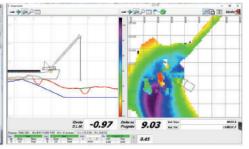


# The advantages of our solutions

- Project and solution tailored to your needs.
- ROI Adopting STX solutions means reducing production costs. Less operators with high productivity.
- Annual assistance provided by a team of engineers.
- Reliable hardware and software.







# Special Projects

# **Applications**

Our solutions have been implemented in different types of



Marine Solutions

**Precision Farming** 

STONEX





### PROJECT AND DESIGN

The SOLAR PLANT Project can be generated, importing the local coordinates from different formats (DXF, TXT). A TARGET POINT file will be produced for the GPS navigation purpose.



#### SURVEY STAKE-OUT

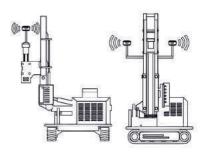
STX-SUITE is a quick and smart stakeout GPS solution made for any kind of operator. A clear guidance layout aids the operator to find the post position with centimetres accuracy.



Costruction & Machine Control







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 (up to 20Hz), installed on a metal frame integrated in the pile driver machine structure.



#### MACHINE GUIDANCE

STX-SUITE fits on any kind of piling machines, drives the operator on the target point (post coordinates) in manual and automatic mode.



### **AUTO LEVELLING**

A slope sensor with an hydraulic interface can be installed on any machine in order to assure always the best levelling accuracy of the mast along two axis.



# STX-DRILL

Mining & Foundation







STX-DRILL is a GPS guidance system for jet grouting capable to determine the correct planimetric position of the columns, the verticality of the drilling tower and the deviations from the designed coordinates.

STX-DRILL guides the operator straight to the designed coordinates thanks to the easy and intuitive user interface. It is only required to drive the machine and match the head and tail edges of the pole against the crosshairs displayed on the screen.

Once the placement is finished, the system provides the exact excavation depth to be reached.



### MACHINE GUIDANCE

Manual positioning of the probe on the post is no longer required, the operator is guided directly to the designated drilling spot in a precise, easy and faulty-free way.

Each function can be controlled through a display installed on the rig.



# VISUALIZATION AND STORAGE

Thanks to STX-DRILL it is possible to assess and store the position of the drilling point, to verify the vertical/ slanted position of the probe, the exact beginning, final position of the treatment, the points made and those still to be treated.



#### PROJECT AND DESIGN

The Project can be generated, importing the local coordinates from different formats (DXF, TXT). A TARGET POINT file will be produced for the GPS navigation purpose. The Project coordinates include the depth and the filt information.



### MONITORING ACTIVITY

Thanks to a remote connection it is possible to monitor the progress of the work and update the projects in real time.



# STX Set-Out

# Precision Farming & Agriculture



STX Set-Out is a simple GPS solution for surveying and staking out.

The software, allows you to set the planting density, the length of the rows, the distances, the guidelines, and the design of any kind of plant in the field.

# STX-PLANT

# Precision Farming & Agriculture







STX-PLANT is a GPS driving system for planting machines of any kind. Thanks to a dedicated software and a machine remote control, it allows to deliver centimeter accuracy when putting the plant (vine shoot, olive, hazel) in the right place at a given distance along the row. The STX-PLANT Software allows to survey and design the project layout right on the job site. The program allows to define the shape of the row: linear, fan and curved shapes. Planting can be done in the two directions of travel and it is not required to drive at constant speed, since the Stonex GPS data rate can check the plant positioning in real-time.



### PROJECT AND DESIGN ON THE FIELD

Design the planting layout directly on the field thanks to the integrated design software.



#### SURVEY STAKE-OUT

Adapt the planting layout to the elevation profile of the field. Smart stake-out with auto-lock.



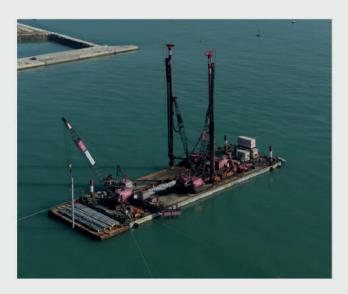
#### MACHINE GUIDANCE

Easy guide of the tractor over the designated points following the direction provided by the display.



## HIGH ACCURACY

High accuracy positioning of the plant shoot.



# STX-MARINE

# Marine Operations







Stonex offers flexible, high-performance positioning systems to meet the unique needs of marine construction on both simple and complex projects.

Our solutions include both hardware and software, and can be easily integrated into third-party systems. Improve productivity and efficiency in underwater marine construction applications including dredging, crane operations, piling and hydrographic survey. STX-MARINE provides accurate 3D visualization to assist the operator with underwater construction tasks.

Our systems are suited for dredging operations, canal/port development, land reclamation and breakwater/revetment works.



#### HIGHLY CONFIGURABLE

Highly configurable to suit endless machine/vessel configurations. Wide room for different applications including basic excavation, dredging, piling and revetment works.



#### **REAL TIME UPDATES**

Improve accuracy and speed with bathymetry data providing real-time updates on materials unloading or extraction. Reworkings to be carried out is drastically reduced.



#### **EASY WORK**

Easy-to-create volume calculations and reports reduce the need for operators to request office processing. Multiple view and configuration tailored to suit your requirements.



#### REAL TIME VISUALIZATION

Real-time visualization of the bucket/dredge head related to the design in plant, profile (2D) or 3D improves productivity and reduces rework and over-dredge.

# **STONEX**



Headquartered on the outskirts of Milan, Italy, STONEX is one of the world leader company on measurement and survey, with over 80 qualified distributors worldwide.

Joined together with an unbeatable professional expertise Stonex offers a wide range of top quality services, to satisfy all pre-sales and post-sales needs.

Stonex is a part of Beijing UniStrong Science & Technology Co. Ltd, global provider of GNSS, positioning and timing technology for the geospatial market.

Thanks to the integration of different positioning technologies and software the wide range of solutions allows to meet the needs of many fields of application and industries, such as:

- Building and construction
- Land survey and cadastral survey
- GIS data collection

- 3D Scanning
- Agriculture and smart farming
- Land and structure monitoring



