

# 3D MACHINE CONTROL FOR EXCAVATORS

# WORK EASIER, FASTER AND MORE SAFELY WITH MACHINE CONTROL

No need for paper plans, manual grade checking or jumping on-and-off the machine!

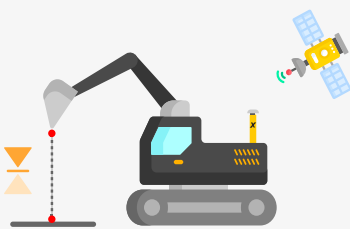
Xsite® PRO 3D enables doing the work correctly at the first time, avoiding overcuts or undercuts. Work with centimetre accuracy without unnecessary interruptions.

All the project information and designs are displayed to the machine operator in real-time, in an easy-to-follow visual format.

Xsite® Machine Control can be installed on any excavator.

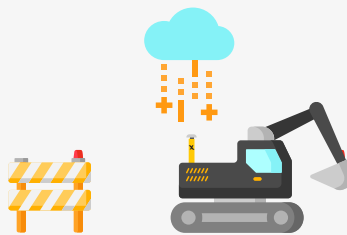


## Benefits of Xsite® PRO 3D Machine Control



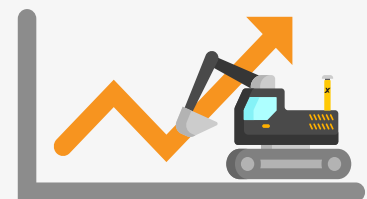
### NO OVERCUTS OR UNDERCUTS

With Xsite® PRO 3D, you'll always know exactly how much to cut or fill. Material and transportation costs decrease as extra materials are no longer needed.



### STAY CONNECTED

Always work with latest project plans. Designing models can be uploaded to the system with wireless data transfer automatically, so you can concentrate on productive work.



### INCREASE PRODUCTIVITY

Machine control system guides the machine operator in attaining the target plane quickly and easily. When the job is carried out properly the first time, you can save time and materials.

# XSITE® PRO 3D MACHINE CONTROL SYSTEM COMPONENTS



Components: Laser receiver (optional), Tilt sensor (optional), Bucket sensor, Boom sensor, Arm Sensor, Frame sensor, Display unit (8,4"), LED-Display (optional), GNSS masts, GNSS antennas, GNSS receiver, Control unit

See available accesories on page 18

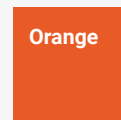
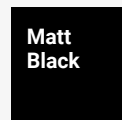
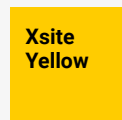
## Xsite® Antenna Masts

Xsite's antenna masts offer a new design and enhanced security.

The satellite antennas are fixed to the masts, making them less prone to theft and more stable.

To give a more uniform and complete look for your excavator, Xsite's antenna masts are available with four different colors.

The available mast colours are Xsite Yellow, Matt Black, Blue-Green and Orange.



Xsite® PRO 3D offers supreme usability combined with the best user experience for the operator.



**Xsite®**  
MACHINE CONTROL

# EASY TO USE. FOR REAL.

**'Advanced' does not need to mean difficult. Xsite® PRO 3D offers ease of use with intelligent features.**

## Just Point And Pick

Xsite PRO is full of intelligent features to make your work easier. For example, selecting an object is easy with the point-and-pick feature.

No need to browse through menus or lists.



## Unbeatable Efficiency

Xsite's compact G2 sensors offer extremely accurate measurement - over 17 times faster than before. The rugged design also enables underwater usage.

## The Best User Experience

Xsite PRO 3D's easy-to-use and intuitive user interface, real-time information and professional support guarantee the best possible user experience.



# XSITE® PRO 3D - USER INTERFACE

Select bucket / tool

Change measuring point  
of bucket / tool

Change surface model  
next up / down

Selected surface and line

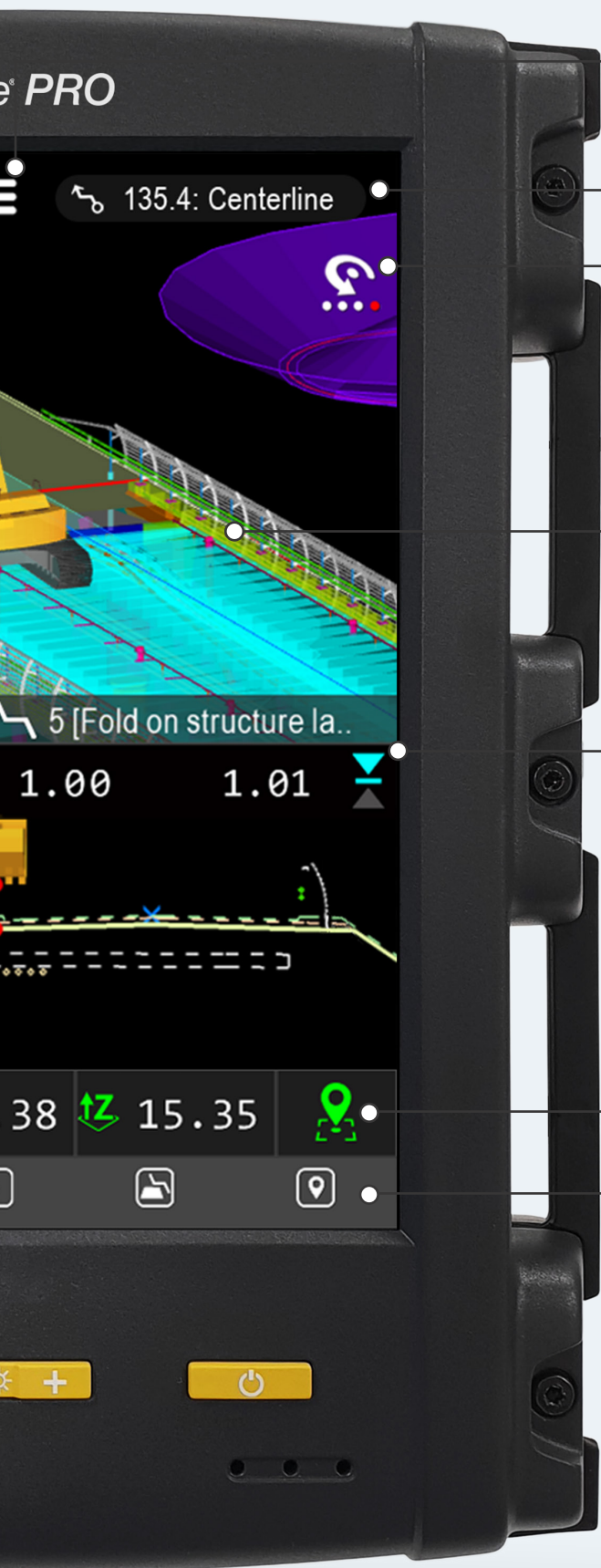
Profile view

Measuring values



## Customizable Views

Xsite PRO 3D's map view and profile view can be easily customized to suit the operators needs.



Open main menu

Selected centerline & station number

Change between views

Map view

Height difference to active surface

Document as-built information

Change between shown measuring values

### Familiar UI Gestures

The intuitive user interface makes the system very easy to use, even for operators with no prior experience of machine control.

# FUTURE PROOF MACHINE CONTROL

Prepare your fleet for the jobsites of the future with Xsite® - Machine control from the open infraBIM pioneer.

## Stay one step ahead!

With Xsite® you won't have to worry about upcoming industry standards or compatibility problems with 3D models.

Xsite® PRO 3D supports all design models for the projects of today and the future. This makes Xsite® system the safest choice for model based construction sites.

### SUPPORTED FILE FORMATS

#### Surfaces

- DXF, XML, TRM

#### Lines

- VGP, SBG, XML, Anpakke

#### Points

- DXF, XML, GT, CSV, KOF, PXY

#### Background Maps

- DXF





## Big project? No problem.

Xsite PRO 3D can easily manage all the design files even for the largest projects, and still offer a seamless user experience.

The systems profile view can show all the layers and lines of the project simultaneously with clear visualizations.



## No 3D models? No problem.

Make your own 3D models easily from the cabin. For example, you can create a pipe trench easily by using an existing line model as a reference.

You can also duplicate an existing surface or line, and set a new height for them.

Self-created models can be shared with other machines in the same project.

**"Xsite® PRO 3D supports  
3D models of all the projects,  
today and in the future."**

# FILES? WHAT? NO.

**Work with understandable, real-life terminology instead of files and complex coding.**

Intelligent layer management of the Xsite® PRO 3D enables the system to display actual names of different structures, such as water pipes, cables, wells, and surfaces instead of cryptic file names or complex codes.

Xsite system comes with an industry-standard code lists that automatically enable your work to be clear and as efficient as possible. The system also supports self-created code lists.

With Xsite, you'll always know what you are building!

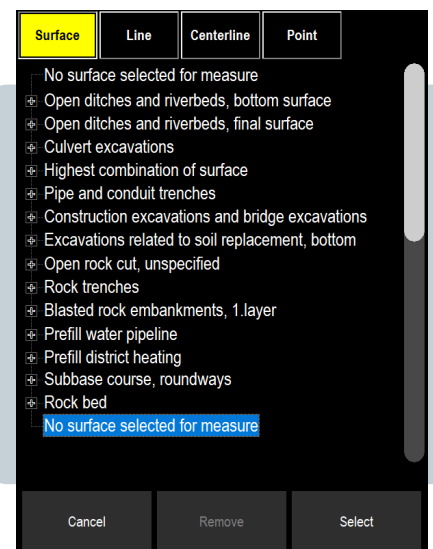
## EXAMPLE:

### A surface model consists of multiple files:

Road/f-road-11000\_18-08-20A\_surface.xml  
Road/f-road-11000\_19-08-20A\_surface.xml  
Road/f-road-11000\_20-08-20B\_surface.xml  
Road/f-road-11000\_21-08-20B\_surface.xml  
Road/f-road-11000\_22-08-20C\_surface.xml  
Road/f-road-11000\_23-08-20C\_surface.xml

### Model's name displayed to the operator:

Highest combination of surface



With Xsite PRO 3D, all the project information and designs are displayed for the machine operator in an easy-to-follow visual format.



With Xsite PRO 3D the operator can select and view the models as one user-friendly entity, with clear naming.

The system combines files automatically based on their meta-data and displays them as one selectable object.

**Xsite's unmatched information management and comprehensive open BIM support ensure ease of use for all parties in the construction project.**



# NOT JUST FOR COLLECTING POINTS

**Document REAL AS-BUILT information from surfaces, cables and wells with one simple touch.**

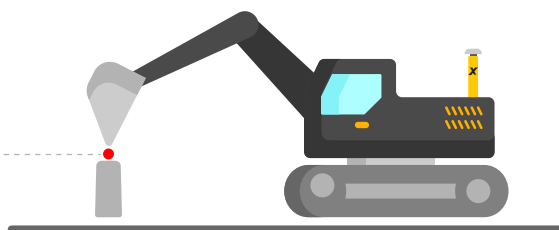
Documenting completed work, also known as as-built, is one of the key benefits of 3D machine control.

With Xsite, the as-built information is always linked to the original design data by an ID number, according to infraBIM classifications. This means that the documented as-built point has information of what it is, instead of knowing just its coordinates.

Documenting as-built with Xsite PRO 3D is made quick and easy for the operator. Just one simple touch, and the system stores an as-built point, with all the relevant information!

X: 6782261.46, Y: 21530729.08, Z: 23.10  
OBJECT NAME: LAMP POST  
POINT ID: 10  
POINT NAME: AS-BUILT  
HEIGHT DEVIATION TO DESIGN: 0.02  
SIDEWAY DEVIATION TO DESIGN: 0.01  
TIME: 08:24:20 DATE: 06.08.2021  
POSITIONING ACCURACY: 0.02

As-built information documented with Xsite contains more information than just coordinates.



## Document as-built

- Surface models/layers
- Line models (Cables, pipes etc.)
- Point models (Wells, posts etc.)



## Stake / Log points

With Xsite PRO 3D, the operator can also stake points or lines. This is especially useful when installing equipment that was not in the original designs.

The saved point data is transferred wirelessly back to the designer or office.

# STAY CONNECTED

**Always work with latest project plans!  
Wireless data transfer enables the  
right information to be in the right  
place, in real time.**

## Automatic Data Synchronization

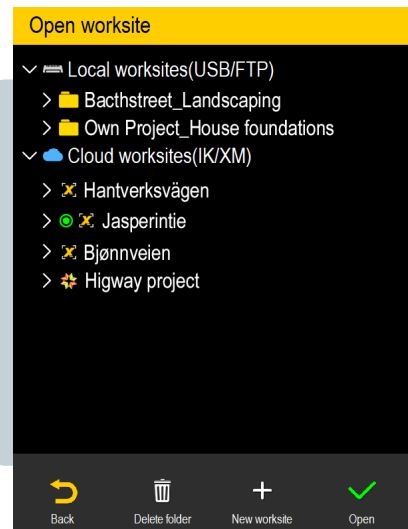
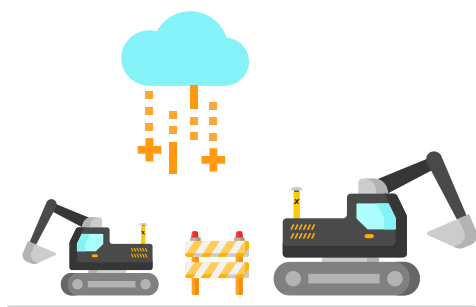
Fast information flow is crucial on a modern-day construction sites. With Xsite PRO's automatic data synchronization, the machine operator always has up-to-date project plans at hand.

In addition, the data collected with 3D machine control can be transferred automatically back to the office for quality control.

The same data is also available for site managers, surveyors, site-coordinators, and projects owners.

## Data Sharing Between Machines

Sharing data such as as-built, log points or self-created 3D models automatically is possible between Xsite PRO 3D systems when connected to the Xsite MANAGE cloud service.



Xsite® PRO 3D can be connected to 3<sup>rd</sup> party softwares, e.g. Infrakit or Gemini.



## Xsite® PRO 3D -Suitable For Every Jobsite

Unlike many other manufacturers, Xsite products are based on open standard file formats.

This means you'll be able to work in different projects and not have to worry whether the project models will work on your system.

With Xsite, all 3D models will work automatically, from any designer, without unnecessary conversions or transformation tools.



# INCREASE SAFETY



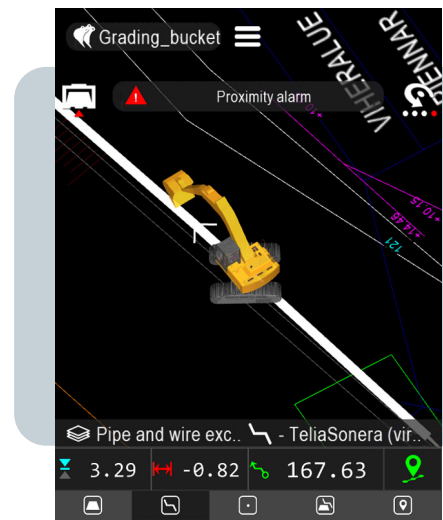
**Increase the safety of your work and co-workers with automated alarms.**

## Proximity Alarm

Xsite systems proximity alarm can be used for warning the operator when he is getting too close to an existing cable or a pipeline, for example.

## Work More Safely

When using Xsite PRO 3D Machine Control, there is no need to jump in to excavations or spend unnecessary time around the excavator. This helps avoiding dangerous situations.





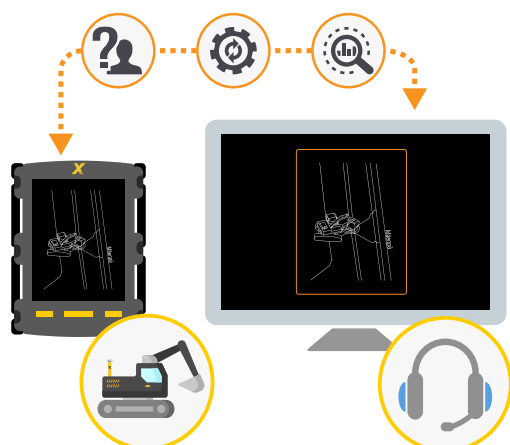
# BEST SUPPORT GUARANTEED

**Our friendly and professional support ensures that you can keep working smarter without interruptions.**

## **Xsite® Remote Support Minimizes Downtime**

To maximise the return on your machine control investment, the equipment needs to be ready for use at all times.

With remote support, your local Xsite support personnel can provide you with guidance or troubleshooting without having to visit the site.



## **Help Is Always Available!**

With Xsite you don't have to worry about learning all the tips and tricks at once. Additional user training is always available remotely or on site.

## **Xsite® Remote Support**

- Operator training
- How-to / Guidance
- Troubleshooting
- Software updates

## **How Does It Work?**

With remote support, your local Xsite support personnel can access your machine control system wirelessly, without visiting the site.

The support personnel can see your systems view on their own screen and operate the system remotely in real time.

# ACCESSORIES FOR XSITE® PRO 3D

Enhance productivity and safety with additional accessories

## TILTROTATOR INTEGRATION

Connection between the Xsite system and a tiltrotator.

Available for:

- Engcon
- Rototilt
- Steelwrist
- SMP
- Marttiini
- Rototop



## JOYSTICK INTEGRATION

Use the main functions of the machine control system directly from the excavator joystick.



## AUTOMATIC TOOL RECOGNITION

With the Xsite® Tool Recognition, the machine control system detects when the operator changes bucket and selects the correct tool settings automatically.



## DREDGING KIT

Extra protection for sensors and cables of the system, for extremely demanding environments.



# SPECIFICATIONS

## Xsite® PRO 3D - LANDNOVA X

### DISPLAY

Size:	8,4"
Type:	Touch / TFT-LCD
Multitouch support:	Yes
Antiglare panel:	Yes
Mounting:	RAM mount
Connectivity:	2 x USB

### SENSORS

IP rating:	IP 69K
Internal heating:	Yes
IMU:	Yes
Connectivity:	CAN-Bus
High durability:	Yes

### SATELLITE POSITIONING

Dual GNSS:	Yes
Constellation support:	(Multi) GPS, Glonass, Galileo, BeiDou
Correction types:	NTRIP (All vendors), Radio
Correction formats:	CMR, CMR+, sCMRx, RTCM 2.1, 2.2, 2.3, 3.0, 3.1, 3.2

### FILE FORMATS

Surfaces:	DXF, XML, TRM
Lines:	VGP, SBG, XML, Anpakke
Points:	DXF, XML, GT, CSV, KOF, PXY
Background Maps:	DXF

### CONNECTIVITY

Wireless data transfer:	Yes
Remote connection:	Yes
3 <sup>rd</sup> party cloud services:	Yes
Mobile data:	2G, 3G, 4G (Via regular SIM card)
Other:	2 x USB



Join our community!



## BRING OUT THE BEST

Xsite<sup>®</sup> Machine Control improves the productivity and accuracy of your work at every stage of your construction projects.

Cut your operating and maintenance costs, increase work safety and bring out the best in your staff and fleet!

Find your local Xsite<sup>®</sup> dealer. Visit:  
[XSITEMACHINECONTROL.COM](https://www.xsitemachinecontrol.com)

### Need something else?

Xsite<sup>®</sup> Machine Control systems are **developed together with our customers, machine operators and construction companies** all over the world, to provide the best systems for any construction project.

Don't hesitate to contact your local Xsite<sup>®</sup> dealer for any feedback or development idea on our products.

**Xsite<sup>®</sup>**  
MACHINE CONTROL