

# Laser measurements with Leica Builder and Disto

... Find out more about this Global Concept solution ...

As the market leader for software intended for professionals, cadwork naturally offers ideal solutions to simplify your measuring and alignment work with high-performing tools which provide a high level of flexibility for industrial and construction uses.

{ the pros making the difference }

- ▼ Advanced solution
- ▼ Support and tips
- ▼ Privileged follow-up
- ▼ Professionalism
- ▼ Continuing education

## The Leica Builder

The direction that the construction market is taking and the changes that it is undergoing encourage an increasing number of companies to specialise in renovation or planning tacheometer. more difficult when taking precise on site measurement readings.

**cadwork**  
your supplier  
of measuring  
devices  
*Leica*  
Geosystems

**Cadwork therefore can offer solutions encompassing two main areas:**

Building: Different measurement points performed by a building (existing building, raising a slab, etc...) are directly transferred to cadwork 3D.

So as to better meet these new requirements, a high-performing CAC/CAD tool, which is both flexible and free, is indispensable

Furthermore, the existing buildings involved in many of these projects often have very different geometric architectural shapes, which can make it even

The results then appear in real time as points and lines in cadwork 3D. This drawing can then be reworked directly in cadwork 3D and then sent to the tacheometer. The machine then precisely points out the changes made directly on site.

Civil engineering: The three-dimensional topographical land survey performed by a surveyor with a tacheometer can simply and quickly be modelled in cadwork 3D with the Land module.

"When building goes digital"

A total station to measure angles, distances and volumes. The possibility to insert a drawing and to store points reduces reading and writing mistakes. The USB port which enables you to transfer data, the tracking mode, measuring volumes and distances up to 120 m make the Leica Builder 300 a real workhorse..



It would then be possible to design and draw a structure in cadwork 3D, taking into account the real-life topographical environment to exploit all sorts of information such as:

- Fill / Excavation volume
- The topographical data from bases
- Production data (building on sloped land)
- Integration of the landscape



### PRECISE MEASUREMENTS DIRECTLY SENT TO 3D

Renovation / Expansion / Measurements of Bridge Elevations / Civil engineering / Construction

2D and 3D construction using scanned points then projecting them onto the site. Exterior or interior building measurements, manual or automatic.

We offer a demo/training on site, with a true project, in order to show you all extended possibilities with Leica apparels and our software



## The Leica Disto 3D

### Remote measurement



### Projection of points for a working reference



### Automatic scan of reference elements



With cadwork and Disto 3D you can easily design:

- Indoor planning - Stairs
- Doors and Windows - Joineries
- Kitchens - Verandas



The DISTO 3D is a unique tool enabling you to capture and project exact three-dimensional measurements. The device's speed and precision provide unprecedented efficiency for uses such as:

- **Creating CAC/CAD models:** production onto a Computer Numerical Control machine corresponds exactly to the quality of your file. 3D DISTO is a bridge between reality and CAC/CAD. When you do cutting to measure and you know the original measurements are exact, you can cut the most expensive materials without worrying.

**3D view and navigation:** The Leica DISTO 3D software updated for smart machines using Windows® now shows results in three dimensions. With 3D navigation, it is even easier to check the measured points.



- **Building information modeling (BIM):** Transfer DXF data directly to your Windows Tablet and use 3D Disto to set up the anchor points, to transfer heights or check the critical sections of the buildings.

*Whatever you use 3D DISTO for, precision is vital. The function established the shape and that is why 3D DISTO looks like a cross between a geometry robot and a portable DISTO.*



Points directly injected in 3D

- **Measurements compliant with execution:** The best way to avoid surprises later on in the work is to know what you're starting with. 3D DISTO captures the exact coordinates in 3D with the precision required for planning. If you are working

with expensive materials, or materials that are difficult to cut or transport, or that are handled outside of the site, the "compliant with execution" measurements are essential.

The motorised horizontal and vertical rotation axes in 3D DISTO are like an automated turret: manually move the laser point towards the right starting point, aim with the video by tapping your target on the image on the command unit or a Windows tablet, then watch 3D DISTO rotate and tilt until the laser point is in the middle of the cross.

The laser draws attention with 1mm to 10m precision ( $\pm 1/16''$  to 33'). To take measurements with such precision, the device uses a technique borrowed from topographical tools (measure a horizontal angle, a vertical angle and a distance on a slope, and convert them into XYZ coordinates).

### Simple and intuitive software

### Efficiency - Flexibility - Speed - Quality.

The flexibility, speed and quality of the preparation are today essential to any company wishing to keep up with the competition. The numerous possibilities of cadwork and its simplicity make it an indispensable tool allowing you to strengthen your position on the market.

#### "Try and buy option:

Following a 2-day training course, you will benefit from a 2-month free trial installation, without obligation to purchase. During this time, you have access to the modules of the full version of the software and all our services, including phone support."

