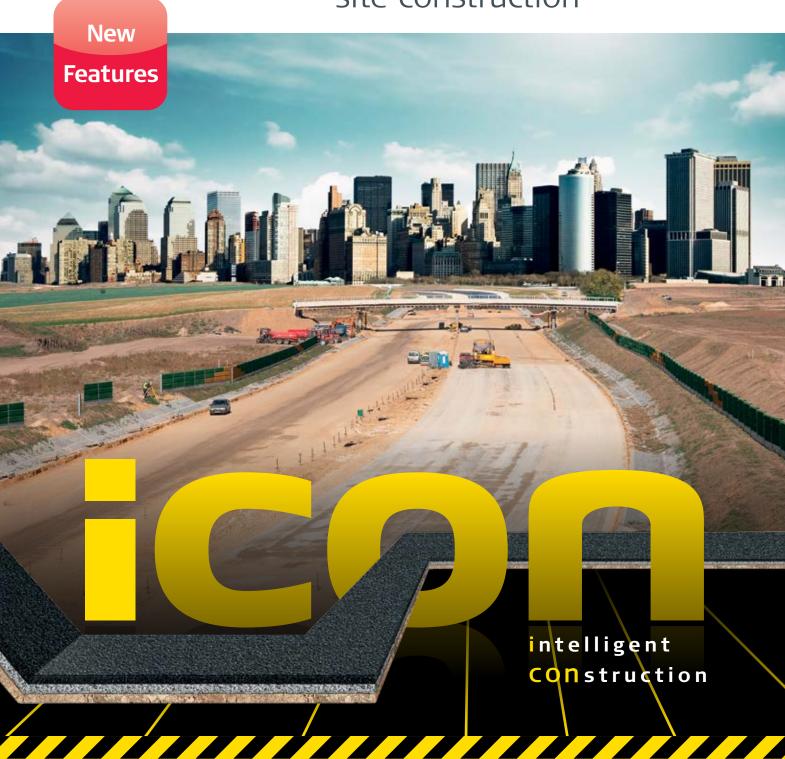
Custom-built solutions for site construction







# Leica Geosystems intelligent CONstruction Enhancing your performance

Fully understanding construction carried us beyond the ordinary. Leica iCON is more than a new product line and a software package, it enables you to enhance your performance, and increase your profitability through perfecting your construction workflow.

#### **iCONstruct**

Tailor-made hardware and software solutions for positioning and measuring tasks on site.



- Straightforward
- Extendable
- Interchangeable



#### **iCONtrol**

Provides you with a comprehensive portfolio of powerful machine control solutions that communicate seamlessly with your iCONstruct



sensors on site and office software.

- Intelligent and flexible control system for construction machinery
- Reliable and seamless sensor communication
- Streamlined workflow & data handling



#### **iCONsult**

An extensive support network, with clear guidance on intelligent CONstruction benefits to grow your business.

- Worldwide network
- Personal service
- Professional consultancy



### **iCON**nect

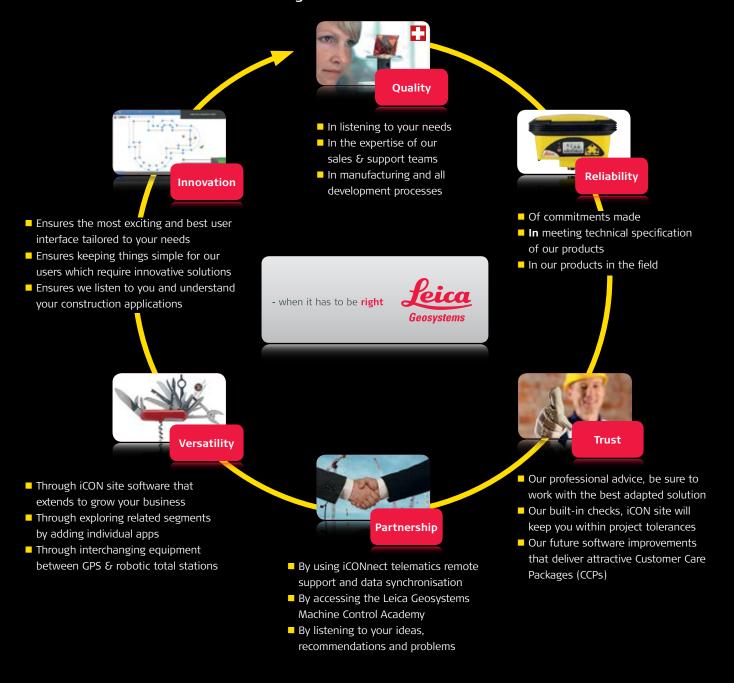
Offers easy data transfer from office to site and machine, remote support for operators on the machine, and basic fleet management functionality.



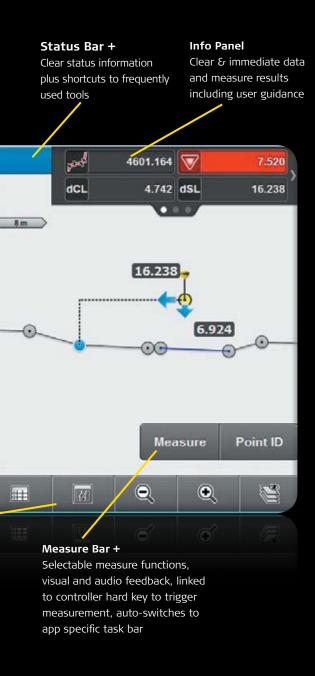
- Simplifies work processes, saving time and cost
- Instant guidance and checks
- Real-time data guarantees accurate jobs
- High productivity

# **Leica Geosystems** Your trusted partner

Leica iCON is the result of a vision, based on our commitment to provide you with high standard product and service solutions. With our standards being strongly interlinked, we believe they establish a solid foundation for shared growth and success.



Construction workflows contain different disciplines which have to work closely together. Only by cooperating smoothly, construction sites become productive and efficient. The Leica iCON portfolio is designed to efficiently connect the different tasks on construction sites. Integration and connectivity from the office, machine and field increases site productivity and ensures high uptime on site.

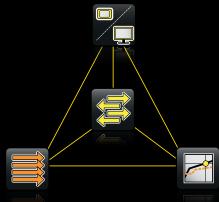




#### **iCONtrol**

Take your on-site workflow to the next level with Leica Geosystems iCONtrol machine control solutions. It communicates seamlessly with iCONstruct sensors and iCON office to enable a smooth workflow and

increase productivity. iCONtrol machine control solutions grow with your business; upgrade your 2D machine control system to 3D and benefit from advanced functionality. iCON site is the perfect add-on for machine operation, independent of 2D or 3D usage. With 2D, it provides the machine with the absolute position on site. With 3D, the same data is used in the field and office, increasing data quality and efficiency. As-built checks with iCON site supports all machine workflows on site.



#### Leica iCON telematics

Save time, speed up work, push your productivity. iCON telematics is a web-based suite of tools that allow you to increase the efficiency of your field (with iCON site) and machine control operations on site and manage your machinery and field fleet remotely. The iCON telematics services include fast and easy

data transfer from office to site, remote support for the operators and basic fleet management functionality. iCON telematics seamlessly integrates with your workflow on construction projects and the Leica iCON solutions, simplifying work processes and enabling significant time and cost savings.

# Profit from your investment



Mikael Bertilsson, Owner and Foreman at Gotene Grävtjänst, Sweden

**Project:** Water and sewer project, 110 km. **Application:** Stake-out and documentation.

"As a company, we have become more flexible and can provide a complete solution when we do stake-out, regular checks and calculate volumes. It's very easy to get started with the equipment and it provides us with flexibility as a company. I can be on location when needed and always feel a step ahead on projects".



Andrew J. Closser, Owner of Millenium Contractors at Indianapolis, USA

**Project:** New football field cathedral high school, Indianapolis Indiana, USA **Application:** Checking grades

"It saves us money. Before iCON site, we'd have three guys pulling strings just to grade parking lots and buildings. Now those guys can be doing other more productive tasks. The ease-of-use to grade check and having the whole jobsite on our screen is a great help. It also gives us control over our jobsite and lets us control how we work the jobsite. It has made us more competitive. We can finish jobs faster which increases our revenues and profits."



Philip Boesch, Civil Engineer at Implenia, Switzerland

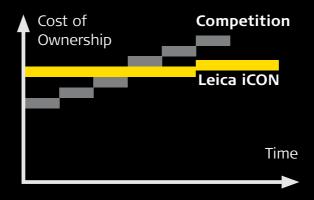
**Project:** Road construction project in Switzerland

**Application:** Checking grades, Stake-out

"The iCON solution allows the foreman on the construction site to check stake-out points on his own. The foreman can brief his team on the construction site and afterwards he can concentrate on surveying. It helps me as foreman to check the points independently or to stake out points in advance. It's just helpful. In the past, two or three workers were needed to do stake-outs on the construction site. Today, this can be autonomous and saves time, saves manpower and promotes efficiency."

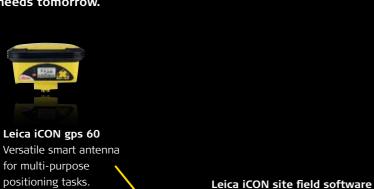
# High quality, lowest cost of ownership

Leica iCONstruct with its high quality manufacturing and a range of Customer Care Products, ensures significantly reduced downtime. Periodic preventative maintenance will maximise productivity through training and innovative software improvements. Leica iCONstruct offers the lowest cost of ownership and highest residual value.



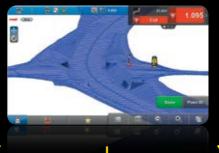
The iCONstruct product portfolio enables you to select your individual solution.

Invest in the solution you need today and have the flexibility to expand your product portfolio based on your future needs tomorrow.



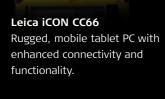
iCON robot 60
High-end robotic total station with superior technology and iCON onboard.





Leica iCON CC80
Robust, lightweight tablet with multitouchscreen and versatile communica-

tion capabilities.









**Leica iCON gps 80 GNSS machine receiver** Versatile, powerful GNSS receiver for machine control and in-vehicle applications.



# Straightforward software design

#### Gain productivity from iCON site.





- Designed for site professionals such as Foreman, Site Supervisor, Grade Checker, Machine Operators etc., who specifically need to efficiently perform measurement tasks on site
- Easy-to-use, measurement tasks are done independently and immediately without interruptions
- Take the guesswork out of your project, for quicker and more accurate invoicing
- Increase uptime of the machines by keeping them up-to-date and productive
- Innovative design and workflows
- Intuitive interface for unmatched user experience
- Reduce to the main functionality for straightforward and result driven workflows
- Reduce unnecessary gimmicks and keep user interface clean.
- Familiarise with the product faster, starting with one or two applications and grow with your experience
- Traffic light warning system for each stake-out point
- Connects to Leica Geosystems trusted and accurate positioning sensors

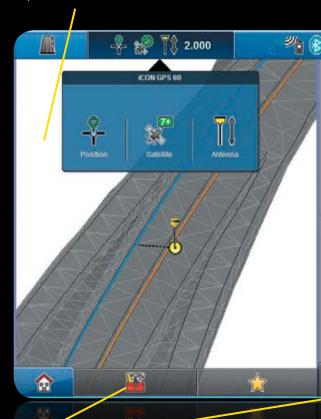




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#### IntuiNav +

Intuitive icons, traffic light colour codes and wizards for secure decision making. Straightened map via Split Screen and 3D graphics for clear data representation



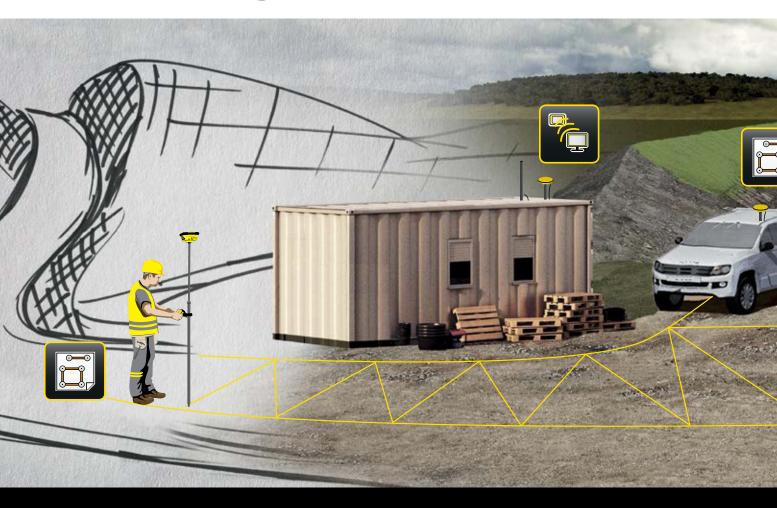
## **Tool Bar**Contains most

relevant tools and functions tuned per application

#### **MapOPS**

Intelligent map controls including Smart Zoom & Auto-Pan. Manage data & graphical contents of map with Point List, File & Layer controls and clever viewing options

# The complete solution for all positioning and measuring tasks on site



## Leica iCON site provides unmatched versatility and flexibility.

It enables you to carry out all positioning related tasks with just one solution. In addition, each iCON site application offers unique features and benefits, performance and accuracy.





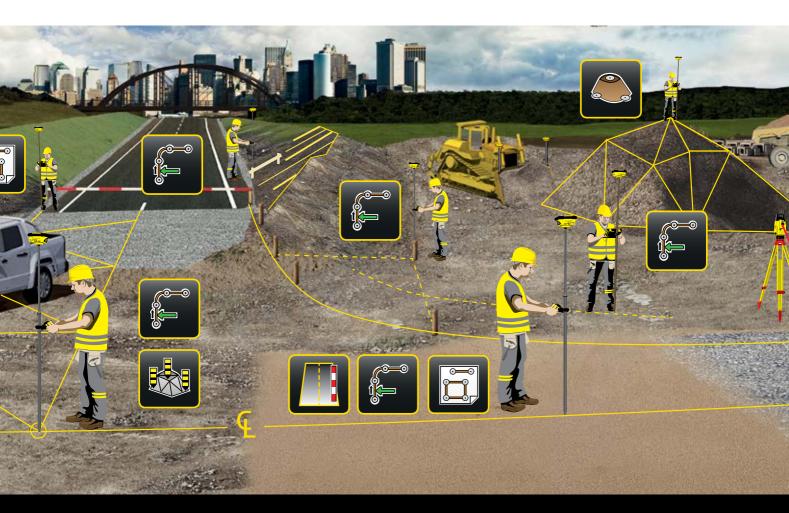
#### Site Infrastructure

#### **Applications**

- Remote data transfer from office to field and vice-versa
- 24/7 GNSS reference station on site container
- Intuitive GNSS SmartAntenna display for easy set up and status
- Transmit GNSS corrections via RTK Network

#### Benefits

- Fast reaction on design changes
- Distribute coordinate system to all machines without machine visit
- Save time by using the intuitive wizard to start Base Station without controller
- No radio interference = no range limitations, so you don't rely on network provider







#### Site Surveying

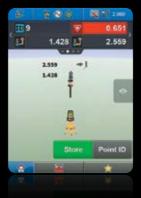
#### **Applications**

- Measure points, lines or arcs in one step with immediate graphical representation
- Apply codes per point and store measurements automatically
- Advanced automatic logging by distance or time

#### Benefits

- Measured elements are stored accurately and visualised, reducing the number of site visits
- Create 3D maps in the field as basis for road planning with CAD office packages
- Topo and DTM can be created quickly with quad or 4-wheel drive





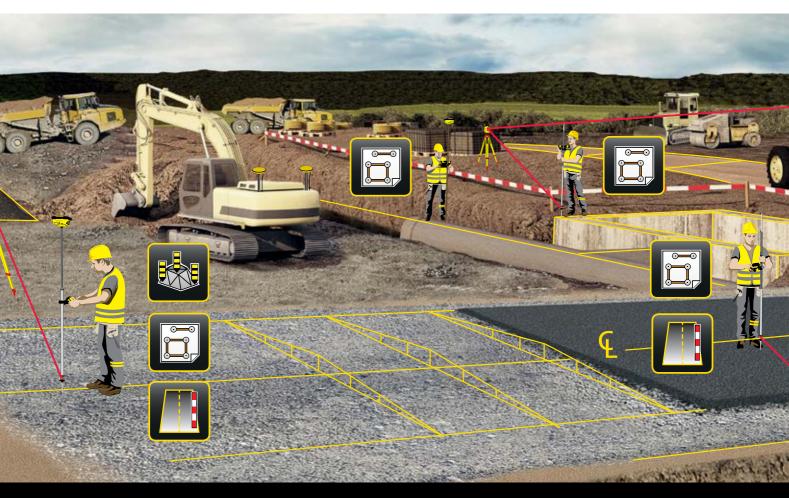
#### Stake-out

#### **Applications**

- Simply select reference points, centre lines, parallels or arcs directly from the map
- Select any line as reference for line/offset display
- Apply horizontal and/or vertical offsets, including stationing
- Colour coded results provide clear quality indicators

#### **Benefits**

- Simply select elements from map or select from list to stake-out
- Simply rebuild and extend incomplete structures
- Using reference lines contributes to better orientation on site
- Integrated tolerance checks increase accuracy and reduce human errors







#### Volumes & Surfaces

#### **Applications**

- Calculate volume of a stockpile or pit, comparison between surfaces or to the elevation
- Add Breaklines to surface for natural modulation
- Apply compaction factor in relation to your material
- Read out balanced site elevation

#### Benefits

- Accurate and flexible volume calculation, independent of size or shape
- Balance out Cut & Fill for optimised material and machine usage
- Monitor the ongoing progress of your earthworks





#### Cut & Fill

#### **Applications**

- Check actual surface against design elevation
- x-section view for foreman application
- Quick colour coded Cut & Fill verification in line with machine control solution

#### Benefits

- Optimise material savings (e.g. asphalt) by checking sub-ground elevation and tolerances
- Better orientation using x-section view
- Better visibility by using same look and feel in machine and field solutions







#### Roading

#### **Applications**

- Accurate model for highest accurate road stake-out
- x-section view for better visibility and orientation
- Quickly adapt on design changes with hold x-slope or create x-sections

#### Benefits

- Optimise material savings, by high accurate design model
- Fast reaction in the field on required stake-out elements



#### As-Built

#### **Application**

- Compare constructed vs. designed
- Graphical indication of measured points, lines and arcs

#### Benefit

- Collect as-built data for client records, e.g. for future reconstruction or accounting
- Reduce number of site visits by visually verifying correctness of measurements in the field
- Assign as-built data to individual layers while collecting points
- Collect immediate as-built data without waiting on third party specialists



#### Leica Geosystems intelligent CONstruction.

Whether you construct buildings, roads, bridges or tunnels, you benefit from intelligent CONstruction. Leica iCON is more than a new product line or software package, it enables you to enhance your performance, and increase your profitability through perfecting your construction workflow.

Understanding construction demands outstanding solutions:

- Custom-built
- Complete
- Straightforward
- High performance

When it has to be right.



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iCONtrol Brochure



Leica iCON telematics



Leica iCON build Brochure

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