

# Leica Geosystems iCONtrol Custom-built Solutions for Machine Control



## 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, its a complete solution that 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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Brochure



Leica iCON telematics  
Flyer



Leica iCON excavate 41  
Brochure



Leica iCON grade  
Brochure

For more information on Leica iCON products and services,  
please visit: [www.leica-geosystems.com/icon](http://www.leica-geosystems.com/icon)

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- when it has to be right



- when it has to be right





# Leica Geosystems intelligent CONstruction

## Enhancing your performance

# Leica Geosystems

## Your trusted partner

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 measurement tasks on site.

- Custom-built
- 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



# iCON

## intelligent CONstruction

### iCONSult

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

- Worldwide network
- Personal service
- Professional consultancy



### iCONnect

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 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.



### iCONSult

Partnership is our commitment to you, around the globe, anytime, anywhere.



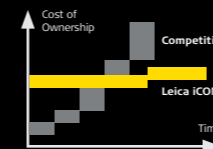
#### Customer Support

Worldwide support network with hotline, web-based support, seminars, customised trainings and consulting service.



#### Customer Care Packages (CCPs)

Tailored service packages allow you to maximise the benefits from your investment.



ACTIVE customer care

#### High quality, lowest cost of ownership

Proven quality of Leica Geosystems solutions reduces your cost of ownership significantly.

#### Worldwide Service Network

Extensive support network and broad service offerings include certification services, repairs and product upgrades.



### iCONnect

Connect to your site anytime.

#### Wireless data transfer and remote support

iCONnect offers a telematic solution for easy data transfer from office to site and machine, remote support for operators on the machine, and basic fleet management functionality.



#### Product information at your fingertips

24/7 access through myWorld platform providing information and keeping you and your product portfolio up-to-date.



#### SmartNet

Integrated 24/7 GNSS Network RTK and DGNS service. Easy access to precise correction data. Network RTK users experience the best availability, reliability and traceability.

Understanding construction.



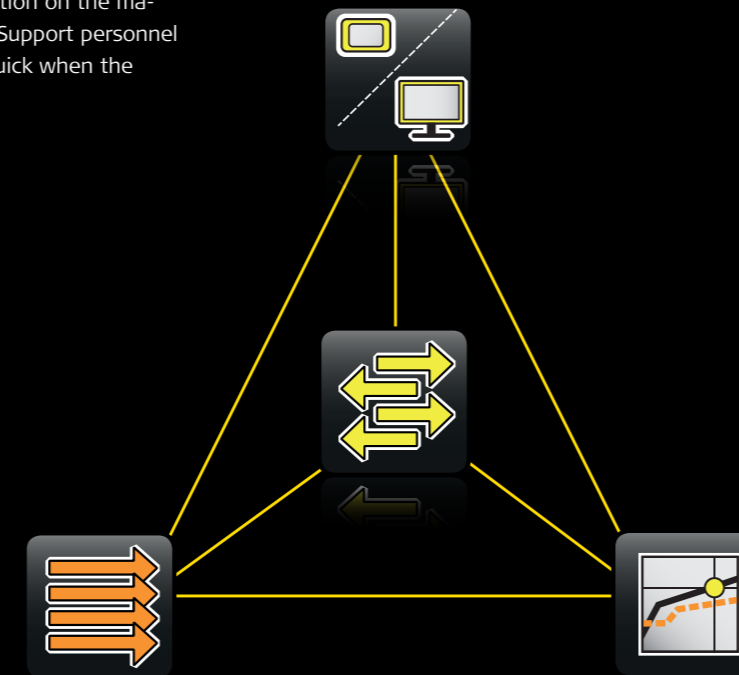
## Leica iCON telematics

Save time, speed up work,  
boost your productivity

Leica iCON telematics is part of our iCONnect service, offering easy data transfer from your office to the site and machine. Plus, it provides remote support for operators on the machine and basic fleet management functionality. This makes iCON telematics ideal for simplifying your work processes considerably – saving you time and money.

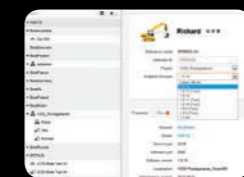
### View

View provides the office manager the ability to remotely view the operator's screen. View enables remote diagnostic. In case the operator needs help, the off-site supervisor can take action on the machine's screen via remote access. Support personnel can use this function to provide quick when the incident occurs.



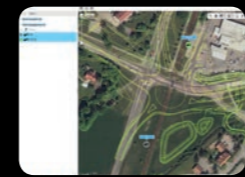
### Sync

Design data for construction sites often need to be updated. Sync offers the possibility to upload the latest design data to your fleet immediately. Manually uploading data via USB stick is no longer required. Data can be transferred remotely in both directions from the field to the office. Remotely validate individual project files on machines in your fleet, ensuring they are up-to-date.



### Track

Track is a fleet management tool which seamlessly integrates within the Leica iCON portfolio. It allows you to monitor the fleet in real time and provide reports. Entry and exits can be monitored for multiple user defined geographical areas. Several reports can be created, such as activity, routing and others filtered by calendar, time, geographical area and machine type.



Take your on-site workflow to the next level with iCONtrol machine control solutions from Leica Geosystems. iCONtrol makes it even easier for you to leverage the entire range of intelligent, tailor-made iCON products. It communicates seamlessly with the iCONstruct sensors and iCON office to enable a smooth workflow and increase productivity on site.



### Leica iCON excavate iXE2 Excavating solution

Full 2D functionality presented on multicolour panel. Simple and intuitive user interface which provides ease-of-use.



### Leica iCON excavate iXE3 Excavating solution

Full visual guidance of the bucket – see the job as you want. Menu keys give the operator an easy overview of functions.



### PowerSnap Concept

Unique patented snap-on & snap-off capability. Contact free. Easy upgrade 2D -> 3D. Intelligent storage of machine data.



### iCP41 & iCP42 – control panels

Combines complete 2D and 3D functionality in ONE panel. Toggle between 2D and 3D by a simple touch of a button. Presented on a 7" large graphic colour touch screen.



### Leica iCON grade iGx2 Grading solution

Easy monitoring of the blade position. Main function keys for easy operation.



### Leica iCON grade iGx3 Grading solution

Fully customisable 3D views of your machine and job site. Auto/manual information is presented on the screen.

## Choose your solution

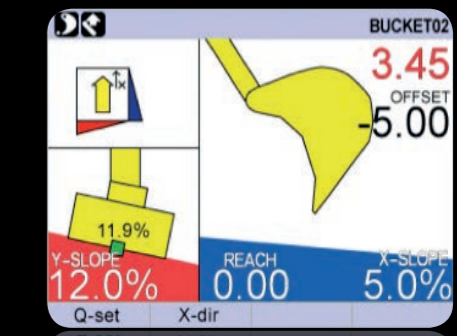
Enjoy a boost in productivity

Leica Geosystems intelligent construction solutions grow with your business, meaning you have one convenient software package for the entire construction site. Upgrade your 2D machine control system to 3D and benefit from advanced functionality. Expand your possibilities with iCONnect services for remote support, easy data transfer and fleet management services. Whatever you need, Leica iCON has the solution for enhancing your on-site workflow.

### iXE2 Excavating solution

Typical excavating applications like trenching, basement and embankments are efficiently guided by a real-time visualisation of bucket position.

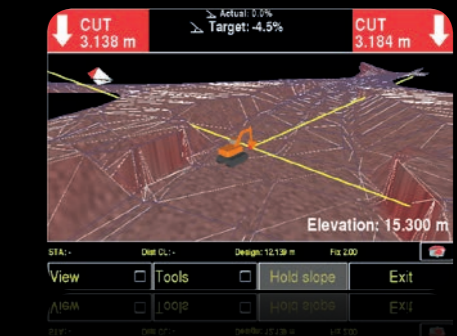
- Profile view of bucket position
- Direction of excavation - view
- Cross section view
- Actual height & offset height
- Selectable reference method



### iXE3 Excavating solution

3D excavator guidance for complex road design projects and site preparation. Empowers the machine operator to have control over their work without relying on others to guide the bucket.

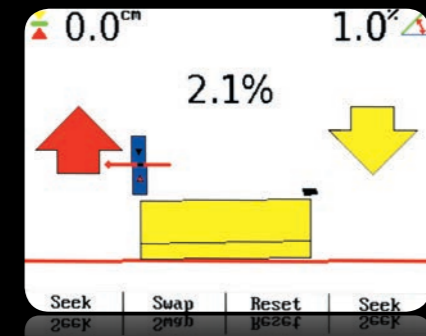
- Create simple terrain models directly on the screen – get the power of 3D without plans!
- One-touch switching between 2D & 3D views – see it how you want to!
- Complex jobs are made simple – construct complex geometries, profiles and grades in a fraction of the normal time
- Fully integrated "real" 2D functionality



### iGx2 Grading solution

Graphical representation of common grading applications such as housing and building pads, sports fields and road maintenance.

- Direct grade or slope offset adjustment
- One-touch access to sensor selection
- Blade position in real-time, relative to surface



### iGx3 Grading solution

Provides functionality for larger projects and applications such as residential and commercial site construction, infrastructure projects and landfill. The addition of SP Technology enhances dozer performance in the application.

- Section, profile and 2D/3D view
- Supports several data formats including DWG/DXF, LandXML
- Customisable 3D views





# Leica Geosystems iCONtrol

The complete solution for all machine control tasks on site



With Leica iCON, you have the accuracy and performance you need for all your construction tasks. iCON combines best-in-class positioning instruments and machine control systems with powerful application software tailored for construction and the latest communications technology. They work together to ensure you handle on-site tasks more efficiently than ever before and get the high-quality results you need.

Successful on site measurement, whether checking, setting-out or using machine control systems depends upon the preparation and integrity of the design data. The software application used to prepare design data must maintain this integrity whether it comes in the form of a paper plan or a complete 3D digital model. Leica iCON office, a complete data preparation, editing and reporting software package can fulfill this requirement and much more.



## iCONstruct

iCONstruct is the perfect support for the on-site machine control solution. The same design data is used for machine operations and for the iCONstruct field solution. This means preparing data only once by using Leica iCON office. iCONstruct field enables measurement functionality in an easy-to-use and intuitive way to site personnel.

- Bring the designed model to the field by setting-out Points or Lines
- Check an actual surface against the design with the Cut & Fill app
- Calculate the volume of a stockpile or pit to know the amount of truck loadings
- Compare constructed vs. designed model by using the As-built app



## SP Technology

Contractors can now boost their productivity and performance even more while benefiting from new ways to use existing equipment. The innovative SP Technology opens new opportunities for dozers:

- Combining ease-of-use and unrivalled flexibility
- Highest precision at the fastest speed
- Faster results without losing accuracy
- Work at higher speeds

By using inertial guidance with the most responsive hydraulic control on the market, GNSS performance is significantly enhanced. Machines equipped with SP Technology have reduced need for rework and increased uptime during poor GNSS coverage or temporarily interrupted correction signals.



## Bulk Earthworks

In the process of shaping a landscape and preparing it for a road project, the efficiency in using heavy equipment like bulldozers, excavators and material is of key importance.

The flexibility of the iCONtrol solution provides a high return on investment in typical applications such as:

- Site development
- Construction of embankments
- Land recontouring
- Cut & Fill operations

Leica iCON grade offers guided as well as automated solutions and Leica iCON excavate offers guided solutions.



## Filling & Road Preparation

For the applications of cutting to subgrade and the building (filling) process through different sublayers of material on a road construction project, the iCON grade solution offers significant time and cost savings. SP Technology speeds up grading with a dozer, helping you spread material for sub formation layers faster and more precise.

For the preparation of layers, a grading solution with customisable views and flexibility offers end users high efficiency and use of their machinery.

### Benefits with iCON grade

- Flexibility to work with laser, TPS or GNSS technology
- Support for multiple data formats
- Consistent user interface between all machine platforms



## Trenching & Residential

### Trenching – a standard application

Any application where there is a buried utility or a need for controlled water flow (water and sewage, electricity, gas, communications)

### Basement – a standard application

- Applications where depth and slope can be controlled from a laser or a reference point
  - Setting up a housing project without having to depend on traditional set-out processes
  - Doing the difficult blind cut applications with full control of your bucket tip
- Leica iCON excavate iXE2 & iCON grade iGX2 offer flexible configurable solutions for these typical applications.



## Finishing layers

Fine grading work for roads, parking lots, airport runways etc. is usually done with a grader.

The Leica iCON grade iGG3 grading solution provides highest precision and flexibility for fast, high quality results.

- Smooth, highly accurate grading to 3D project design
  - Easy operation with full 3D graphical guidance in the cab
- For paving applications with high precision and productivity use Leica iCON grade iGx2 offer flexible configurable solutions for these typical applications.



## Leica iCON telematics

The perfect tool for office to field communication. You can manage your fleet remotely via the iCON telematics web portal. Having the latest design data in the field is essential for site performance.

- Applications:
- View: Provides remote support functionality. View and operate the machine screen remotely from the office.
  - Sync: Create projects on the web portal and assign various machines from your fleet. Upload the latest design data to all machines used in your individual project.
  - Track: Keep track on your fleet. Generate individual or periodic reports.

