



# TOPCON WORKPLACE

DIGITAL CONSTRUCTION WORKFLOW TOOLS





### The Intersection of Infrastructure and Technology

Many companies are at the crossroads of growing infrastructure demands and having the technology to meet them. It's a growth opportunity for any company willing to adopt the new technologies needed to stay competitive.

Integrate the right digital solutions for you and your company. Together, we can efficiently build the infrastructure needs of today and tomorrow.

### Topcon Workplace: Digital construction workflow tools

Topcon Workplace digital tools support both surveying and construction end-to-end workflows and put you in control of making smart and productive decisions. Make your jobs easier and more efficient with cloud connectivity between your positioning technology and everyone on your team.

We partner with global and regional industry leading companies to address your company's diverse digital needs and mixed fleet solutions. That means you can use the software you're comfortable with and combine workflows across platforms.

More than just *software*:

- Field-based sensor control
- Connection services
- Asset management
- Design and modeling creation
- Planning and oversight

### Digital tools for your industry and applications



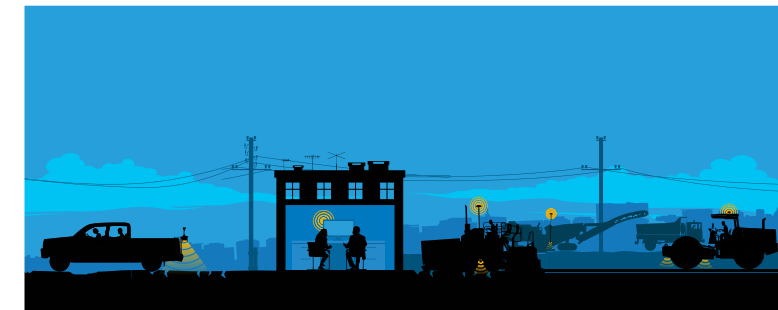
#### Survey, Mapping, and Inspection

Solutions that connect field and office in real time to get the most out of your data. Easily increase productivity and simplify data collection and processing workflows.



#### Earthworks Construction

Solutions that prepare and execute your 3D design data and get the most out of machine control systems that doze, grade, and excavate to millimeter accuracy.



#### Paving Construction

From milling to asphalt and concrete paving to final compaction passes, stay in total control on each phase of your project while maximizing your data and resources.



#### Vertical Construction

Simplify the layout process whether you start your workflow from printed plans, PDF's, or fully coordinated Building Information Models. Moving the construction data from the office to the field and back has never been easier.

## Field

Develop infrastructure with precisely automated machine control guidance. Collect and utilize valuable data from GNSS, total stations, scanners, and UAV.



## Field and office connectivity

Work more productively with real-time cloud connectivity offering wireless transfer of files, progress reports, and management tools between field and office and project stakeholders.



## Office

Create takeoffs, build constructible models, process data from the field and schedule and plan with 5D visualization.

## Seamless integration with your existing software

We actively collaborate with global and regional industry leaders to better address your needs. Together with our partners, we deliver integrated solutions that improve productivity, efficiency, and profitability.



We partner with Bentley Systems to deliver integrated measurement, positioning, and software solutions that better connect and improve the workflows of surveyors, engineers, contractors, and owners working on infrastructure projects.

A direct cloud connection provides access to project data in real time, while compatible file formats make it easier to move data between software platforms without re-work. Integrated software for UAV mapping and inspection workflows deliver higher quality data and more insightful deliverables.



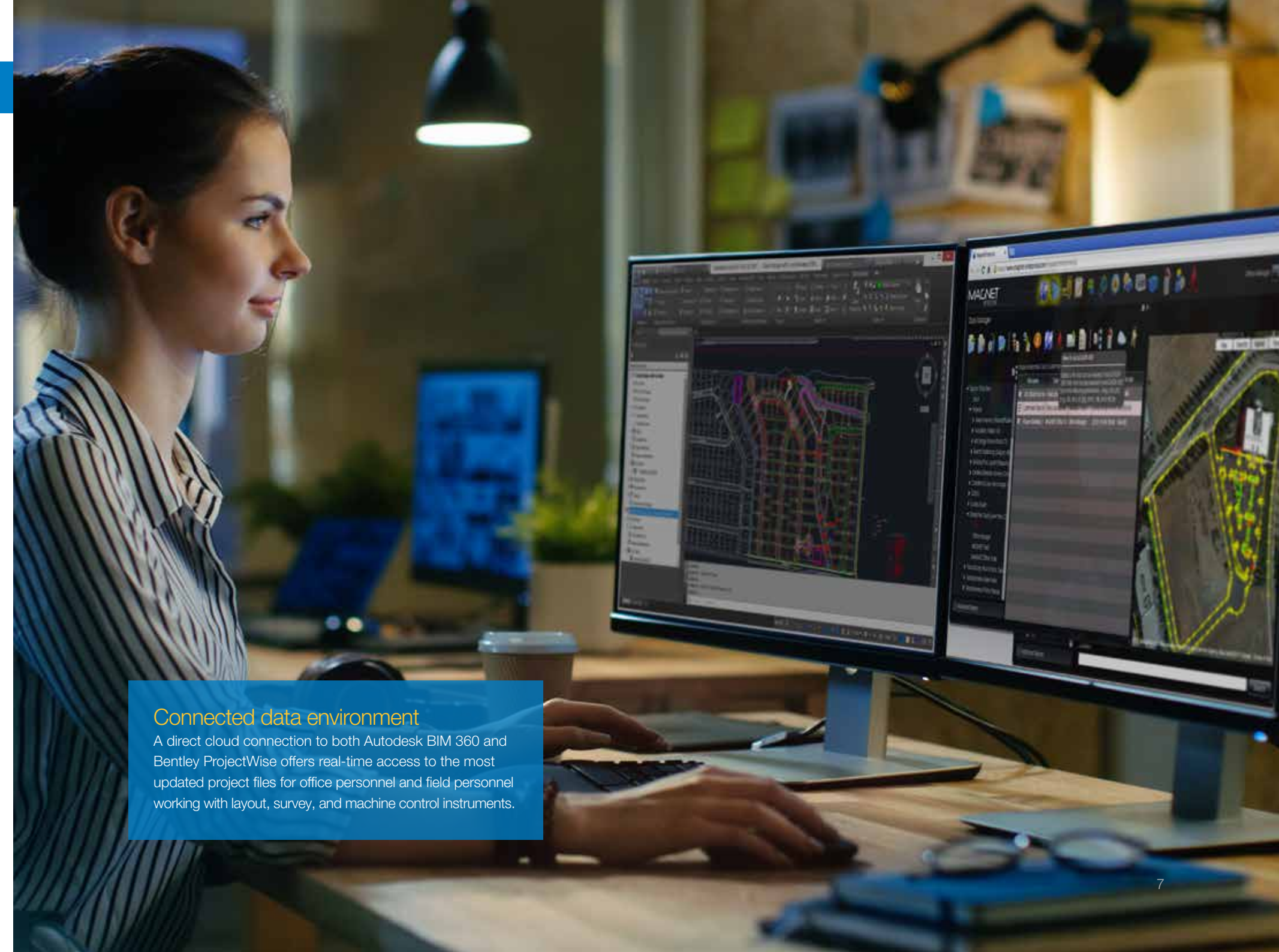
We partner with Autodesk to deliver measurement and positioning solutions to the vertical construction and civil earthworks industries.

These solutions form a tighter, more seamless connection between the office and the field, bringing increased efficiency and productivity to workflows. File compatibility, software integrations, and cloud connectivity are the key elements to delivering improved combined workflows.

**Together with our partners, we deliver integrated solutions that improve productivity, efficiency, and profitability.**

### Connected data environment

A direct cloud connection to both Autodesk BIM 360 and Bentley ProjectWise offers real-time access to the most updated project files for office personnel and field personnel working with layout, survey, and machine control instruments.



## Survey, Mapping, and Inspection

Solutions that connect field and office in real time to get the most out of your data. Easily increase your productivity and simplify data collection and processing workflows.

**Applications:** stakeout, as-built, road and sitework, deformation monitoring, topographical maps, inspection, scan and UAV data processing, mass data web-based collaboration.

### Field



Collect survey mapping data and perform construction and road layout using total stations, levels, and GNSS receivers.

- Graphical intuitive software with low learning curve
- Direct connection to secure company account
- Microsoft Bing Maps® for satellite image background



Mobile app control of robotic total stations and GNSS with phone or tablet.

- For use with Apple iOS or Android OS devices
- Simple, easy-to-use interface
- Secure data transfer, both to and from the field



Connect field to office and get results to managers and supervisors in real time.

- Easy creation of geo-referenced projects
- Direct transfer with Bentley ProjectWise and Autodesk's BIM 360 service
- Graphical map view of all project related files



### Industry leading file support

Bring in design files or third-party data directly to a field controller or via office software with minimal conversion effort or data loss.



### Your work connected

MAGNET® Enterprise is a secure web-service with unlimited file storage that advances connectivity, provides data oversight, and connects to third-party applications.

**MAGNET® software leads the industry with compatible file support**





## Spotlight

### Elite Survey Suite

This hybrid positioning solution makes your jobs faster and easier. The suite includes the GT series robotic total stations, HiPer HR hybrid GNSS receiver, FC-5000 field computer and MAGNET® software system. It's a fully integrated into the field-to-office workflow, so you can handle the measurement needs of the modern job site.

Taken together, each individual hardware element combined with MAGNET software running on Windows® software form a unique and powerful productivity tool. MAGNET software streamlines your most-used routines and assures a fast and easy data connection from office to field to office.



## Office



### Survey

Produce finished surveys with customizable drafting, design, and processing tools for property plots, subdivision design, and land development projects.

- Full sub-division design tools
- Contour and surface creation, volumetrics, and automated pad design
- User defined title blocks, symbols, and linetypes



### Tools

Data processing software that generates final coordinates from measurements taken using MAGNET Field and Pocket 3D software driving any of our total stations, digital levels, and GNSS solutions.

- Process GNSS and total station field measurements
- Visualize field work in Google Earth, 3D orbital view, CAD view, and more
- Create code libraries and generate customized reports



### Delta Watch Monitoring

A modular solution to monitor, manage, and evaluate automatic and/or manual monitoring data.

- Perform computations, alerts, and customized reports
- Observe, assess, and better understand and manage risk
- Notifications sent when measurements exceed thresholds

## Featured Integration

### Autodesk Civil 3D integration

MAGNET software integrates seamlessly into Autodesk's AutoCAD Civil 3D. Immediately transfer survey data from MAGNET to Civil 3D with a single button click. Conversely, the Exchange for Autodesk plug-in inserts a MAGNET ribbon directly into Civil 3D enabling cloud-based data transfer to mobile field crews or machine operators using Sitelink3D.



## Spotlight

### Intel® Falcon™ 8+ Drone – Topcon Edition with ContextCapture and Inspect

Our UAV solutions let you collect smooth, incredibly accurate data for all your inspection, surveying, and mapping needs. The Intel® Falcon™ 8+ Drone – Topcon Edition delivers precise high-resolution imaging in tight spaces and challenging environments. And with our ContextCapture software, powered by Bentley, you can cost effectively produce 3D models for any project, using captured images. Finally, complete your inspection workflow with MAGNET Inspect software to browse, annotate, and report your findings.



### Mass Data Collection

The accelerated adoption of UAV and scanning technologies allows users to capture larger amounts of “mass data” in the field and later create rich deliverables in the office. Topcon Workplace provides a well-integrated end-to-end solution from high-quality mass data collection instruments to post-processing software that delivers complete control over the final results.

### Office (Mapping and Inspection)



Collage

The best way to work with static scan, mobile scan, or UAV data in a single software environment.

- Faster point cloud processing and mass data handling
- Combine civil, mapping, BIM, and survey data
- All-in-one mass data processing



Collage Web

Works seamlessly with MAGNET Collage to publish and share your mass data maps in an easy-to-use, online program.

- Ultra-fast, web-based point cloud visualization
- Handles 3D point clouds from Topcon sensors or other manufacturers
- Measure and annotate data sets



ContextCapture

UAV Data Processing Software for 3D Reality Modeling.

- Create 3D precise models from photographs
- Model any scale project
- Integrate models into any workflow



Inspect

Manage UAV inspection data and complete your data capture workflow by creating an inspection report.

- Browse inspection images in a 3D model
- Import data directly from ContextCapture
- Organize annotations and create an inspection report

**Bring together 3D data from separate data sources with Collage software**

## Earthworks construction

Solutions that prepare and execute your 3D design data and get the most out of machine control systems that doze, grade, and excavate to millimeter accuracy.

**Applications: machine control and grade management, takeoff for site and road, 3D model building, real-time progress reporting, construction planning.**

### Machine Control and Grade Management

Topcon Workplace includes our machine control software that's popular with the crews on the job site. 3D-MC, Pocket 3D and 3D Office help make dozing, excavating, grading simple and efficient.

#### Field



#### 3D-MC

Easy-to-use interface providing the operator with unmatched machine control ability. Work productively according to the 3D design with greater piece of mind.

- Most intuitive user interface in the industry
- Easy to upgrade
- Generates as-built data connected in real-time with Sitelink3D



#### Pocket 3D

Get the power of GNSS based site management for foreman and grade checkers. Easily verify grades, reset stakes and locate utilities. Create machine control files from scratch on site.

- Most intuitive user interface in the industry
- Check grade, verify cut and fill
- Calculate volume quantities and as-builts



#### Sitelink3D

Communication and management system for managers and machine operators with instant file transfer, messaging, and real-time job site updates.

- Constant connection to all active jobsites
- Visibility and tracking
- Remote access and support

#### Office



#### 3D Office

Create, edit, import/export, design, and prepare 3D job files for any job site.

- Export files to control box for immediate use in the field
- Import/Export 3D-MC files
- Import/Export road alignments



### Job site connectivity with Sitelink3D

Get total connectivity on the job site. Want to know where your operators or machines are at anytime, anywhere? With Sitelink3D, you can see all your equipment on all your job sites in real time. You're always connected via your laptop, desktop, or even a mobile device.

### Asset tracking with Tierra

Reliable web-based remote asset tracking and information management solution that provides clear visibility to remote assets 24 hours a day, 7 days a week, anywhere in the world.

**Sitelink3D offers real-time remote support to field operators**





## MAGNET Office Construction Software

Software solutions from planning and oversight to preparation and execution of your 3D models. MAGNET Office software improves construction execution and connects directly to the field with Enterprise cloud integration.



### Project

A complete estimating and planning software package for earthwork construction.

- Map-based planning
- Intelligent production forecasts
- Optimized traffic planning



### Construction

A complete toolset for estimating and preparing site and road construction.

- Import and export multiple file formats
- Automated pad design with automatic site balance
- Direct connection to Sitelink3D service



### Site

A feature-rich constructible model building software solution for any machine control, land development, and road design project.

- Elevate 2D designs into 3D models
- Multiple volume routines
- Automated data cleanup



### 3D Exchange

Create, edit, import/export, design, and prepare 3D job files for any job site. 3D Exchange provides full file conversion and light model building capabilities.

- Import multiple industry standard formats
- Export to any Topcon machine control format
- Remote connect, file transfer, and messaging available



### Estimation, Model Building, and Data Prep

Bring your plans construction plans to life with confidence. Enter site-specific construction materials and quickly build design surfaces, create cost and volume reports, and develop 3D models. Now you can bid and manage each project quickly, accurately, and successfully.



### Construction Management

Reduce risk while scheduling and planning more efficiently on your large scale construction and earthworks projects. Easily calculate mass haul distances, adjust the schedule, and update quantities or production rates. Our user-friendly software includes BIM for infrastructure capabilities such as clash detection and 5D value-based planning that benefits every phase of your project.

**MAGNET® Office software connects directly to the Field with Enterprise cloud integration**



## Paving construction

From milling to asphalt and concrete paving to final compaction passes, stay in total control on each phase of your project while maximizing your data and resources.

**Applications:** machine control, road surface scanning, resurfacing design and progress reporting.

### Field



#### 3D-MC

Easy-to-use interface for the operator, providing unmatched machine control ability.

- Increases productivity
- Easy to upgrade
- Backwards compatible with existing Topcon MC systems



#### Pocket 3D

Get the power of GNSS based site management for foreman and grade checkers. Easily verify grades, reset stakes and locate utilities on site.

- Most intuitive user interface in the industry
- Check grade, verify cut and fill
- Calculate volume quantities and as-builts

### Office



#### Collage

Import your 3D paving scan data, including adjusting density, smoothing, and reducing file size and then export data to office.

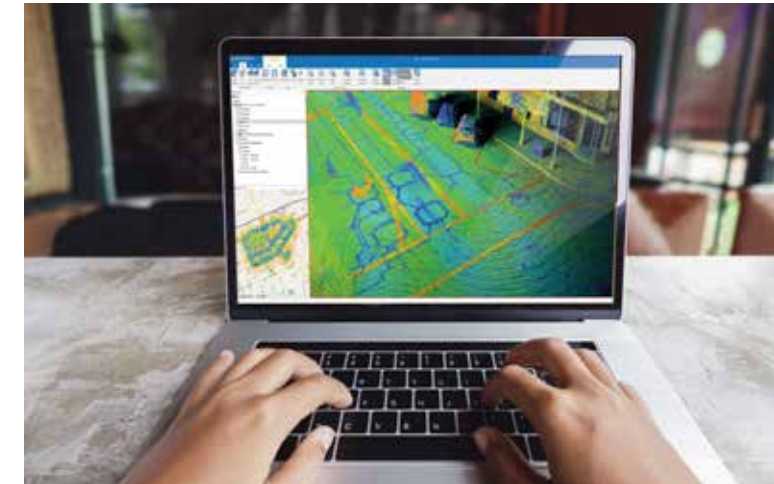
- Process data from RD-M1 vehicle mounted scanner
- Adjust data density and filter noise
- Fully prepare data for resurfacing design



#### Construction

Analysis and design tools for road surface projects for the most cost-effective milling and paving, saving heavily on material usage.

- Import dwg/dxf, text, PDF, and many more file types
- Fast calculations, cross slopes, transitions and smoothing, milling and lifts
- Instantaneous material quantities



## SmoothRide Asphalt Resurfacing

The world's most advanced road resurfacing hardware and software solution. With SmoothRide you have one seamless workflow to scan, design, mill, pave, and compact, all tied together by MAGNET Workplace.

The need for traffic lane closures is gone, quick 3D scanning replaces hours of cross-section measurements, and our intuitive software delivers better results throughout the resurfacing process.

Save time, lower costs, and increase safety, all while improving the results you deliver.



## Vertical Construction

Simplify the layout process whether you start your workflow from printed plans, PDF's, or fully coordinated Building Information Models. Moving the construction data from the office to the field and back has never been easier.

**Applications:** MEP layout, interior layout, concrete layout, quality control, as-built scanning.

### Field



#### Field Layout

Get your robotic total station going from paper plan or 3D model to building layout faster than ever.

- Intuitive and graphical building layout menus
- Large file format support including DWG
- Fast creation of design points from lines



#### Construct

Mobile app control of robotic total stations and GNSS with phone or tablet.

- For use with Apple iOS or Android OS devices
- Simple, easy-to-use interface
- Secure data transfer, both to and from the field



#### Enterprise

Connect field to office and push your layout plan to the field and back in real time.

- Cloud connection to layout crews in the field
- Direct transfer with Autodesk's BIM 360 service and Bentley ProjectWise
- Graphical map view of all project related files

### Office



#### Layout

The ideal CAD software solution for making points from objects and confidently taking a building plan into the field for layout.

- Create points for construction layout applications
- Convert PDF files into vectorized linework
- Flexible CAD Functionality



#### Field Layout with Autodesk compatibility

If you are working with Autodesk software including Revit, Navisworks, or AutoCAD; then Autodesk Point Layout software can be used to create layout location points files directly in the MAGNET Field software format.



#### Mobile solutions for iOS and Android

Construct mobile app is ideal for BYOD (bring your own device) users seeking better job site layout productivity. Construct software provides a streamlined workflow with graphical real-time positioning to any point, line, or feature.





## Spotlight

### GLS-2000 with Collage and ClearEdge3D software

The GLS-2000 scanner, utilizing Collage software for data processing and ClearEdge3D Edgewise for scan-to-BIM feature modeling, is an accurate, faster workflow for as-built scanning. Create models from scans of pipes, structural elements, ducts, conduits, and more.

Collage software also integrates with ClearEdge3D Verity to evaluate construction quality and provide as-built tolerance by comparing the point clouds against design and fabrication models. This approach yields 100% verification in the time it takes to spot check 5%.



## Training and support

myTopcon provides direct access to a comprehensive library of training and support content available in a mobile friendly format. With single sign-on access you can browse by product for informative quick guides and training video content.

View the latest webinar or E-learning to advance your professional knowledge and stay on top of the productive digital workflows that advance your business. Visit [mytopcon.com](http://mytopcon.com) today.

## Available materials



Quick Guides



Product videos



Instructional webinars

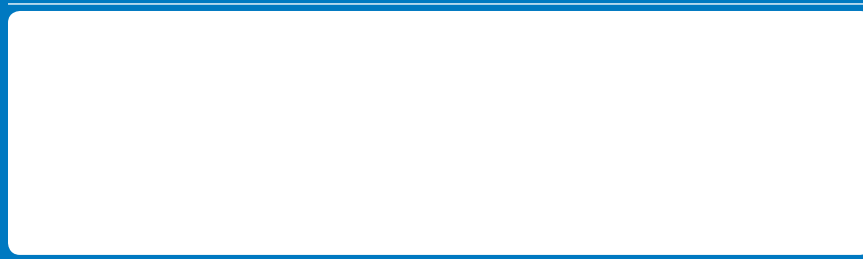


E-learning





[www.topconpositioning.com](http://www.topconpositioning.com)



Specifications subject to change without notice. All rights reserved. 9/18 7010-2255 A ©2018 Topcon Corporation

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Topcon is under license. Other trademarks and trade names are those of their respective owners.