

Building Construction

Increase accuracy and reduce rework



INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

Table of Contents

Navigate sections by clicking below.



INTRODUCTION

**LAYOUT
SOLUTIONS**

**CONSTRUCTION
VERIFICATION**

**FLOOR
FLATNESS AND
LEVELNESS**

**ABOUT
TOPCON**



Technology to build it right the first time

Meet market demands with innovative workflows and proven ROI. Our technology enables workers to quickly become skilled and productive with processes that improve accuracy and control, reduce errors, and save time. Our layout, construction-verification, and floor flatness and levelness solutions improve collaboration and outcomes.

“

On the five buildings we just completed, we probably saved close to \$200,000 in labor. In anybody's book, that's an impressive return on investment. This project could have easily taken four to five times as long.

”

— Les DenHerder, HPS Mechanical

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON



BUILDING CONSTRUCTION

Leverage digital productivity

Building contractors facing industry challenges like tight schedules, reduced budgets, and labor shortages are adopting digital tools to gain a competitive edge. The scarcity of experienced workers shows the urgent need for technology solutions that improve proficiency and productivity. Digitizing work processes can create a higher ROI by improving the efficiency and accuracy of both seasoned and new workers.



Reduce labor needs



Lay out faster



Avoid costly rework



Proven ROI

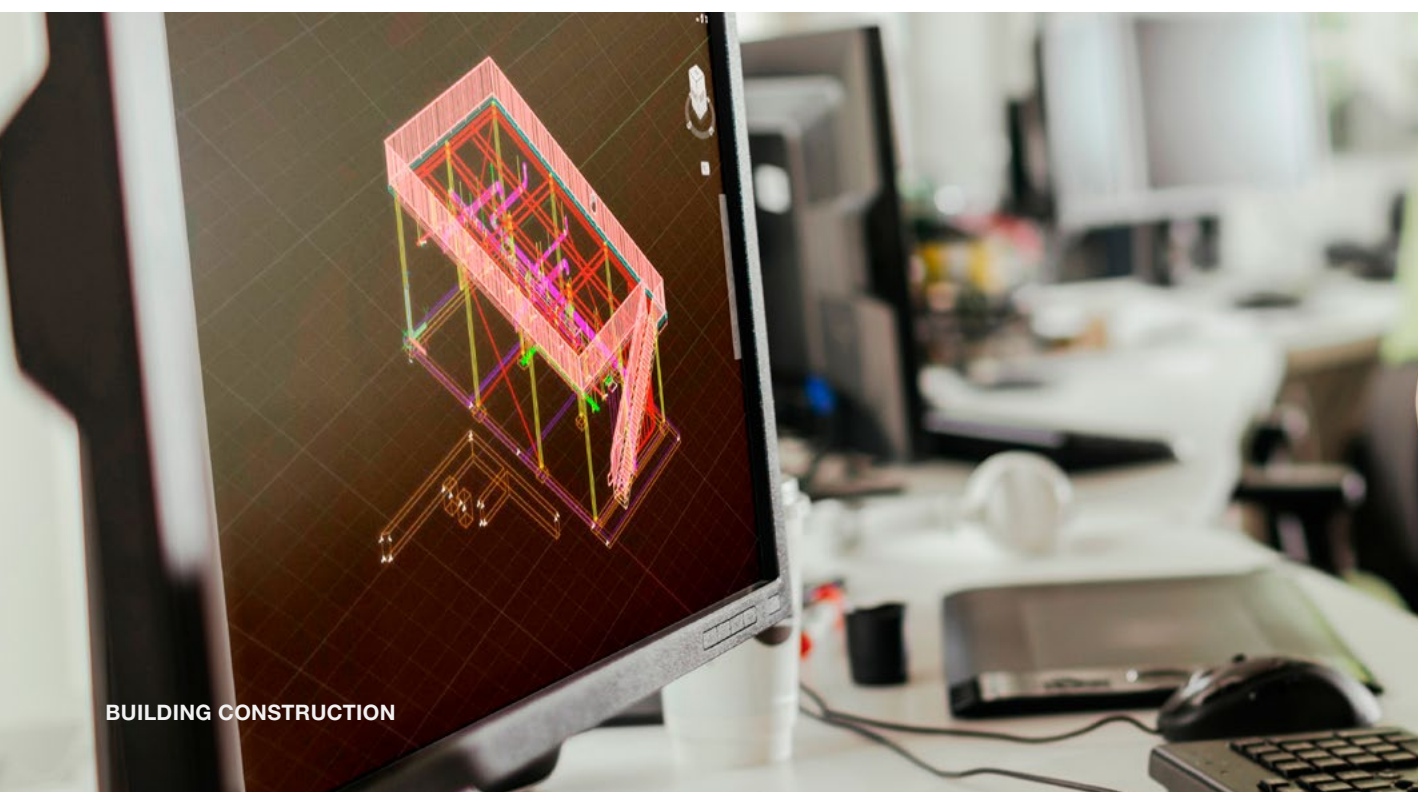
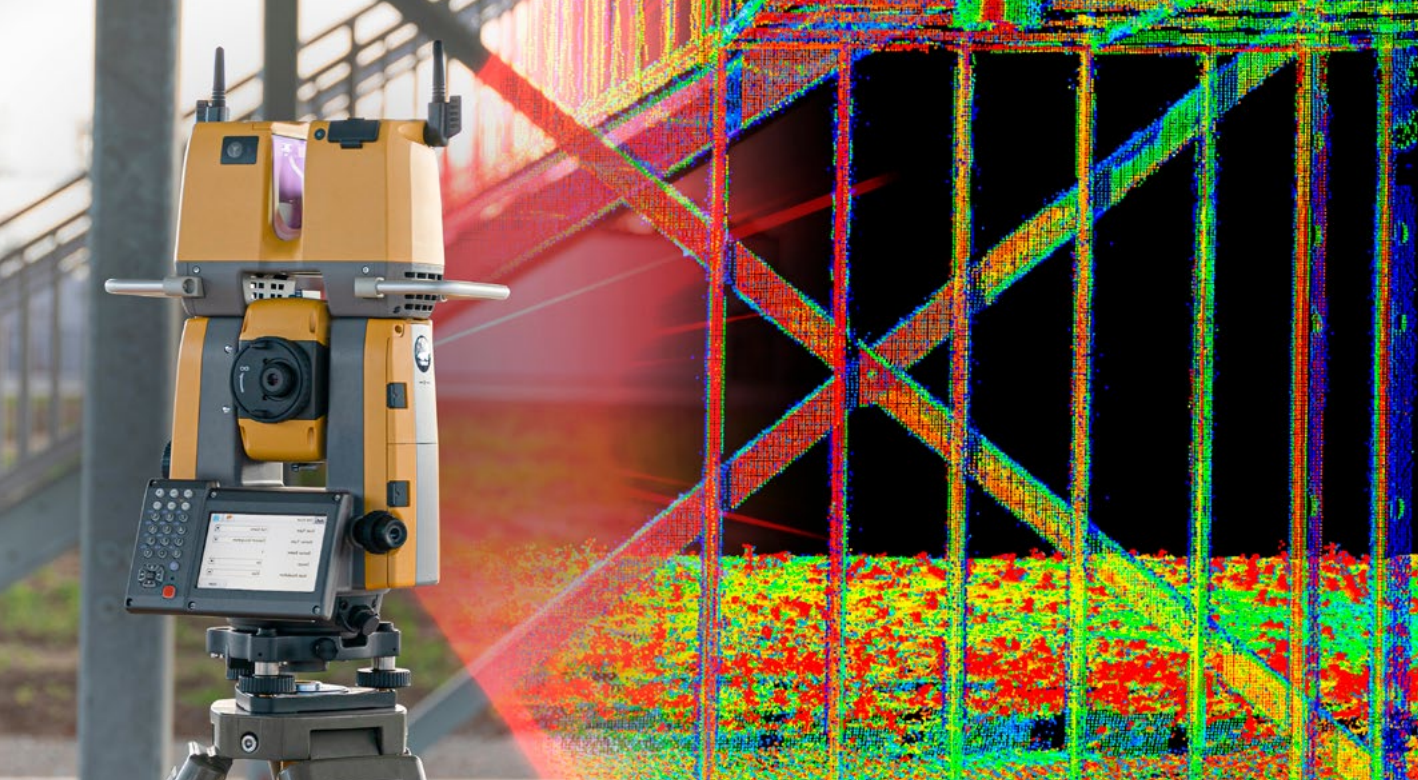
INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON



BUILDING CONSTRUCTION

Avoid costly mistakes

Costs and workloads increase when components are installed in the wrong place and processes are sequenced incorrectly. With our solutions, you can detect mistakes and other issues early on and build to the plan 100% of the time, avoiding costly rework.

Bring BIM and CAD designs to life

Our digital solutions will integrate well within your software stack. With our trusted point-creation and file-sharing workflows, you can connect seamlessly to Autodesk® software and other formats. Take your project design to the field and build to plan with no hiccups or snags.

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

Serving contractors in the building construction industry

We have products tailored for every specialty on the jobsite for contractors, small and large.





Layout solutions

Speed and accuracy – “must haves” for layout



Getting started with digital layout

We've helped countless people transition from paper plans and tape measures into digital layout and measurement. The benefits are significant. Digital layout is up to five times faster than traditional methods. This technology turns two-person tasks into a solo operation, improving accuracy and productivity. The ROI on digital workflows has never been clearer, and getting started is easier than ever.

Go further with digital layout

Managing multiple field crews or large-scale projects? If so, digital workflows are for you. The user-friendly interface and extensive features seamlessly blend into your workflows to help you coordinate multi-trade project teams working on cloud-synchronized drawings. Increase your points per day and reduce unnecessary rework with Topcon.

INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON

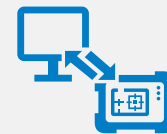


Building construction layout workflows

Solutions aren't one-size-fits-all. We can help with both fully on-site and synced office-to-field workflows. With its versatile, user-friendly interface, our latest field software eases the transition into robotic total station layout.



Prep your data and lay out directly in the field
Whether your field crew begins layout from a DWG, PDF, paper plans, or even without design plans, we have you covered.



Prepare layout files from the office
Our Point Manager Autodesk Revit® and AutoCAD® plug-in software enables automated workflows to create, share, and sync layout files with the field.



Topcon Digital Layout field software for building construction

Topcon Digital Layout meets all your building construction layout and as-built measurement needs. This straightforward field software, compatible with 2D, 3D, and BIM workflows, is perfect for general contractors and subcontractors. Its intuitive workflows are easy to learn and use, so new users can quickly learn to lay out points like seasoned professionals.

Lay out routines with total flexibility

Field-based point-creation routines

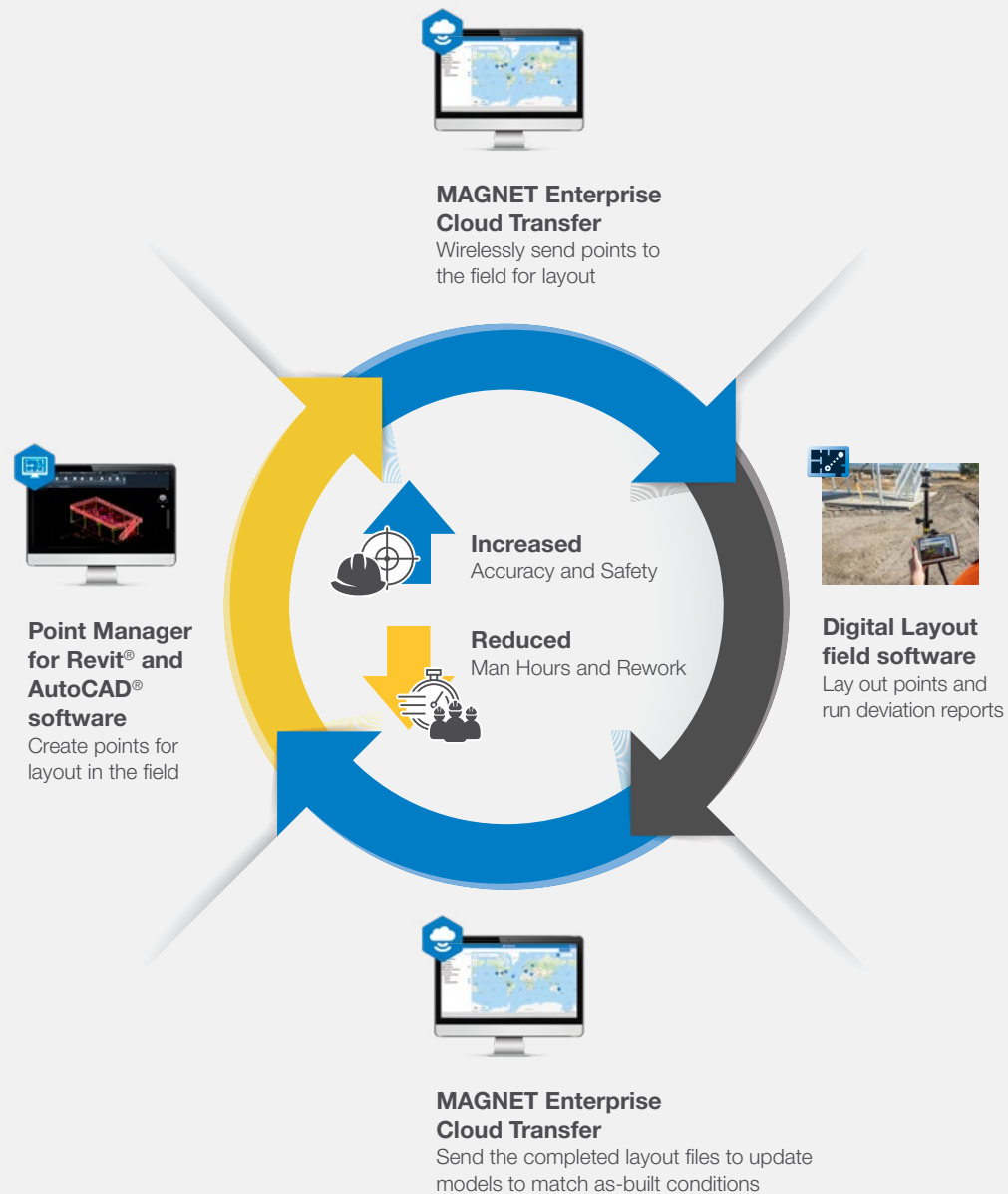
Import layout files from BIM and CAD

Individual or bulk-point creation workflows

Snap-to-points and CAD features

Capability of drawing a layout plan from scratch

Cloud-based import and export file sync routines



Point Manager office-to-field layout

This plug-in, compatible with Autodesk®, Revit® and AutoCAD® software, streamlines the office-to-field workflow. You can prepare layout files with automatic point-creation routines and seamlessly transfer data between the office and field.

Automatically create points on BIM objects

Add job-site-matching coordinate systems

Send background and point files to the field

Import field points back into the original model

Generate advanced point comparison reports

INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON

Digital positioning tools

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON



LN Series layout navigator

A compact, self-leveling, easy-to-set-up tool designed for jobsite layout and measuring.



GT Series robotic total station

This high-speed, lightweight instrument increases jobsite mobility for a full range of applications from basic to advanced. The RC-5A accessory provides the fastest and simplest way to relock the connection to the prism when the line of sight has been interrupted.



GTL scanning robotic total station

Use one instrument for layout and reality capture on a single setup to streamline construction verification.

“

Topcon has the best reputation for total stations. I started in the industry 20 years ago and have always felt comfortable using Topcon.

— Jeff Valencia, Kistler McDougal Corp.

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INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON



INTRODUCTION

LAYOUT
SOLUTIONS

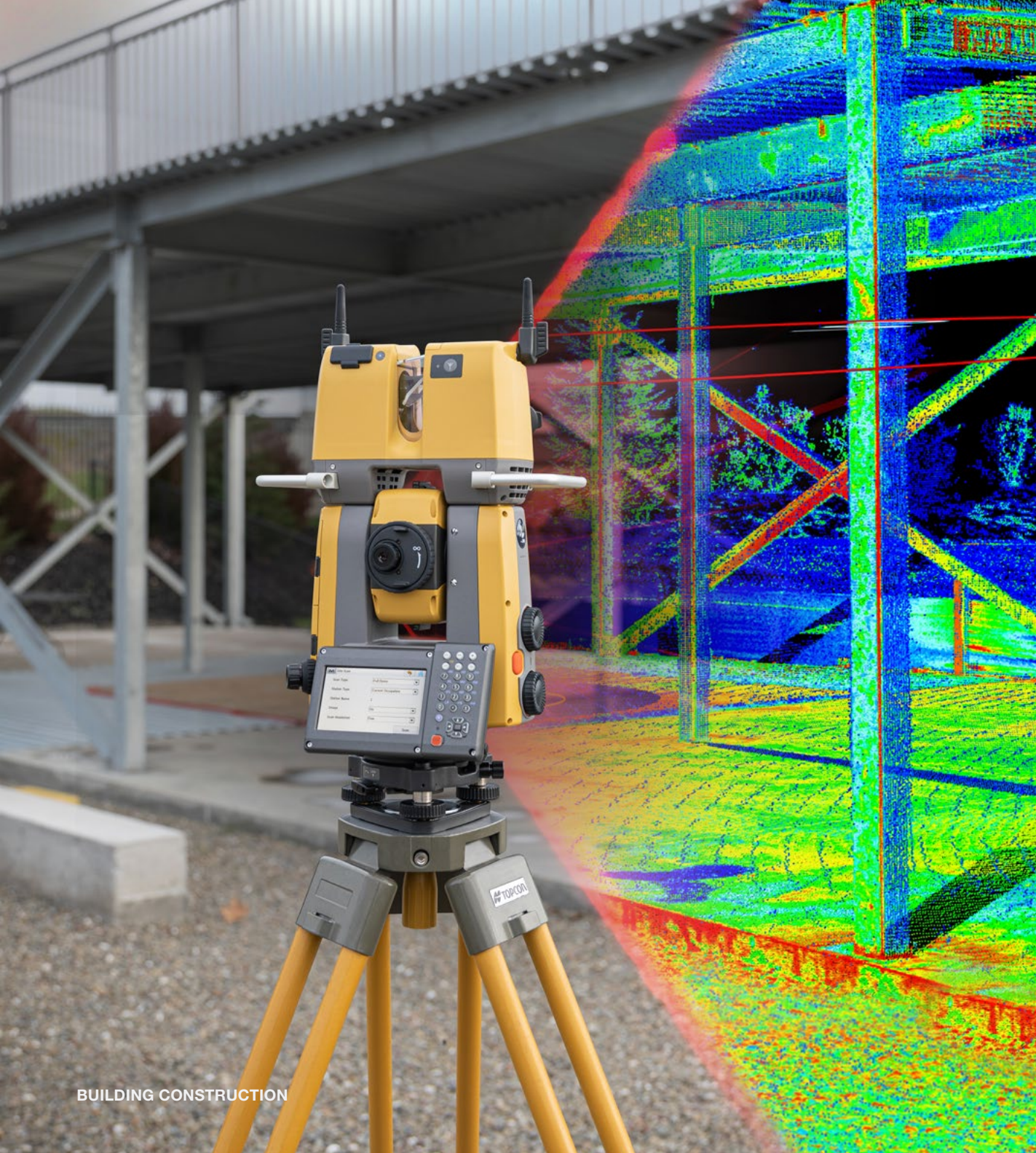
CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

Construction verification

Improve your quality assurance



Verify the accuracy of recently installed work

Traditional visual spot checks may leave gaps in verification, risking cost overruns and potentially reducing profits. Our solution compresses layout, 3D scanning, and data processing into just a few steps. The quality check workflow can verify 100% of your recent work in the time it would take to spot check about 5% of that work using traditional methods.

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

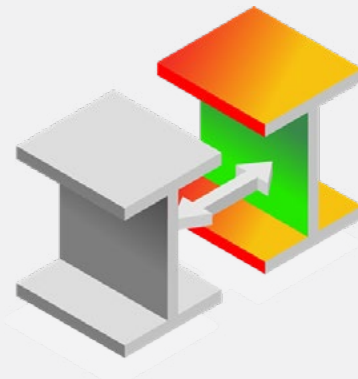
ABOUT
TOPCON

Workflow benefits for construction verification



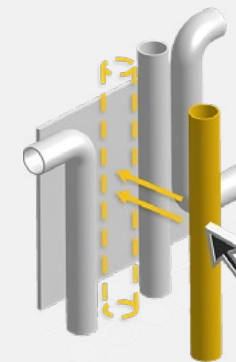
Reduce rework and redesign

Construction errors can often increase costs by up to 20%. By digitizing your quality assurance workflow, you can identify construction mistakes before they become expensive problems.



Get more accurate quality assessments

Compare as-built point clouds with a BIM model to get a detailed, accurate quality check of the project's adherence to the design.



Update as-built models within Autodesk Navisworks® software

Your coordination model can reflect actual construction conditions. You can export point clouds to give your team the quality documentation they need.

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

Simplified construction verification workflows



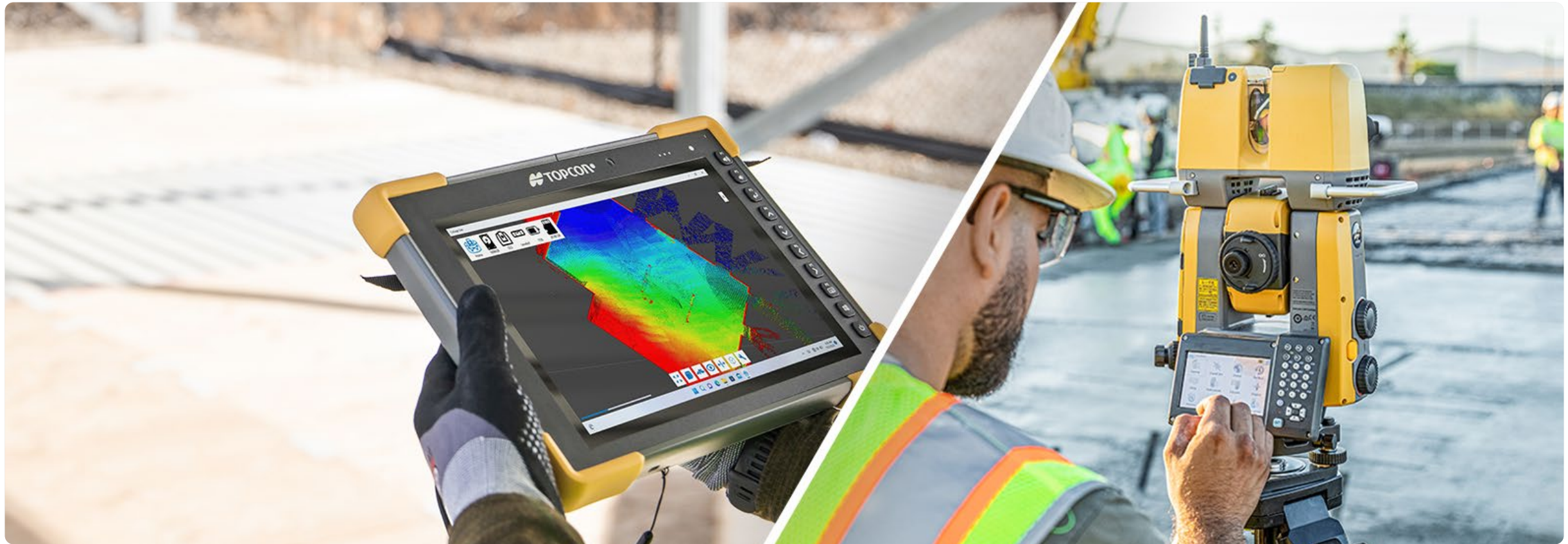
INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON



Floor flatness and levelness

Scanning solutions to verify floor flatness and levelness

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

Workflow benefits for floor flatness and levelness



Identify flooring issues while the concrete is still workable

Combine the GLS or GTL with Rithm software to identify flooring issues in near real-time, fix them, and reduce costly rework. Rithm software can analyze flatness and levelness and create heat and contour maps.



Analyze floor flatness and levelness on survey control

Topcon scanners produce on-control results thanks to their ability to capture prism measurements. Adding survey control to your concrete slab analysis eliminates tedious localization setups, significantly improving efficiency.

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

Scanning solutions



GTL scanning robotic total station

With one instrument, users can lay out points and perform construction-quality tasks. The GTL is a versatile solution for layout, construction verification, and floor flatness and levelness analysis.



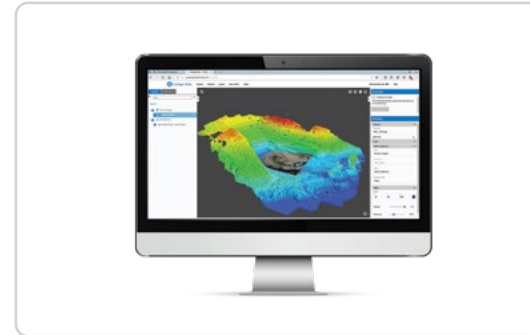
GLS scanner

This product's high-power mode captures reflective surfaces such as wet concrete. The scanner's extended range improves coverage and speeds up scanning while preserving data quality.



FT or FC ruggedized tablets with field software

The FT tablet, which features a 10" screen, enables you to process and visual scan data and create heat maps using Collage Site software. The FC tablet, which has a 7" screen, provides lightweight mobility and the ability to initiate scans from MAGNET software.



Office software

Collage and Collage Web

Software and web service that enables users to process, merge, analyze, and share point clouds from multiple sensors

ClearEdge3D Verity

Software that compares as-built scan data to Autodesk Navisworks® coordination models

ClearEdge3D Rithm

Floor flatness and levelness software designed for use in Autodesk Navisworks® software

ClearEdge3D Edgewise

Automated scan-to-BIM building-modeling and object-recognition software

“

Using the GTL scanning robotic total station reduced our time by 80%. The time savings within our pre-fabrication workflow was on measuring, coordinating, layout, and avoiding rework with steel that would not have fit.

— Andy Rocks, The Welding shop

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INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON



Support

We offer a variety of support options, allowing you to access to a wide range of training and support materials directly through our myTopcon NOW! mobile app and website. With a single sign-on, you can easily navigate our product-specific quick guides and training videos. Stay updated with the latest webinars and eLearning content to increase your professional knowledge and keep current on digital workflows that can help your business grow.



Trust Topcon

We are the ideal partner for developing advanced solutions for your positioning and machine control challenges. Our experience, technical expertise and overall company strength make us uniquely qualified to provide enhanced automation technology and ultimately drive your customers' productivity – along with your market share – to ever higher levels.

SPEED TO MARKET | GLOBAL NETWORK | EXPERIENCED OEM TEAM

INTRODUCTION

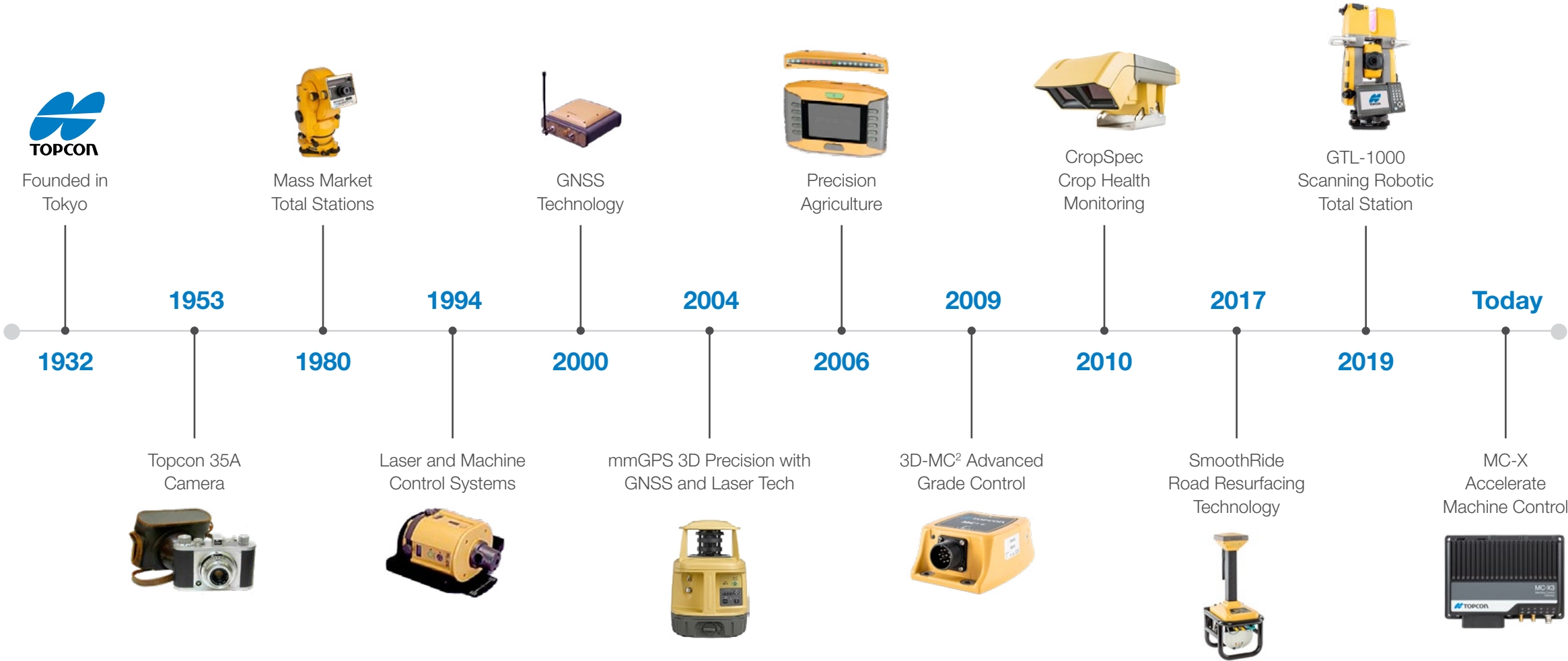
LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON

A History of Topcon Corporation



Trust Topcon to get you there faster with high-quality positioning and automation solutions tailored to your product strategy.

Independent solutions

In an industry with many contractual alliances, we remain independent. We have the freedom to develop technologies that best fit your unique goals. Our custom OEM solutions are all clean-sheet designs, providing more opportunities to differentiate your product from the competition.

Speed to market

Product development carries an inherent pressure to do everything faster and better than before, particularly since technology is only viewed as innovative if it arrives before the competition. Our experience helps simplify and shorten the design process, allowing you to go to market with your product faster – and with the utmost confidence.



Topcon Training Center,
Livermore, CA

Topcon Technology
Roadshow Truck

Topcon Positioning Systems Headquarters,
Livermore, CA



4900+ Employees | 2150+ Patents



BUILDING CONSTRUCTION

INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON

Global Network

With an extensive worldwide network of corporate offices, R&D centers and technical groups, we have an unmatched capability to assist any manufacturer, no matter where they are located, with fully integrated machine automation solutions. This also positions us to create programs to assist and support dealer networks directly or through extensive training programs.

Experienced OEM Team

Our experienced OEM team knows what questions need to be answered first and the potential pitfalls to be avoided along the way. Their first objective is to make sure our technology is the right fit for your application and will be your partner every step of the way.



Topcon Training Center Concordia, Italy

Topcon Training Center, Concordia provides facilities and advanced equipment for testing and training purposes. The training programs offered have been developed to provide advanced knowledge of Topcon GNSS technology, correction services as well as to improve operators' skills and expertise in ICT-aided construction and agriculture.

The campus covers an area of approximately 135,000 square meters of which 24,000 square meters are dedicated to machine control and precision

agriculture testing. The center has classroom facilities on-site accommodating 200+ participants for seminars and coursework ranging from basic to advanced.

Conveniently located in Northern Italy, the Topcon Training Center, Concordia is just an hour away from major Italian airports in the region.



Training Center

INTRODUCTION

LAYOUT
SOLUTIONS

CONSTRUCTION
VERIFICATION

FLOOR
FLATNESS AND
LEVELNESS

ABOUT
TOPCON



Training Center

Topcon Training Center Livermore, California

Topcon Training Center, Livermore is a dedicated space to train our customers, dealers, and Topcon employees on all construction and geopositioning-related products. With nearly six acres, the facility boasts two classrooms, outdoor theatre-style seating for live demonstrations and training and an equipment garage for hands-on installation training.

The training facility plans to train up to 2,000 participants annually. Topcon has designed the training center to simulate live applications that take place on a

typical construction site which provides the participants with a fully immersive experience and a heavy focus on job site workflow. An added use of this facility, Topcon offers select OEM prospects the opportunity to fly in their VIPs for a complete workflow demonstration of our products including a hands-on experience.

Livermore is located in northern California and is easily accessed from San Francisco and Oakland airports.



topconpositioning.com

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