

# 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

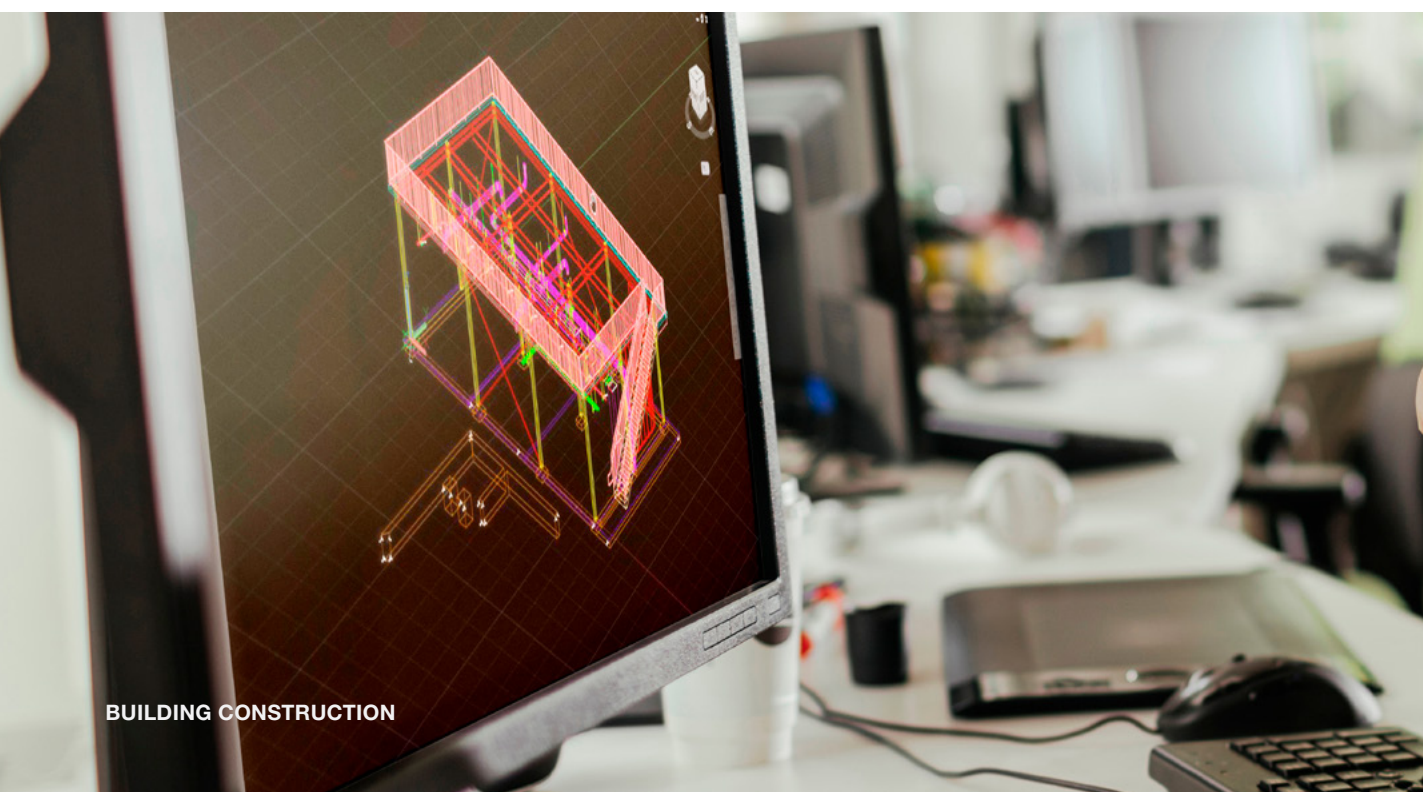
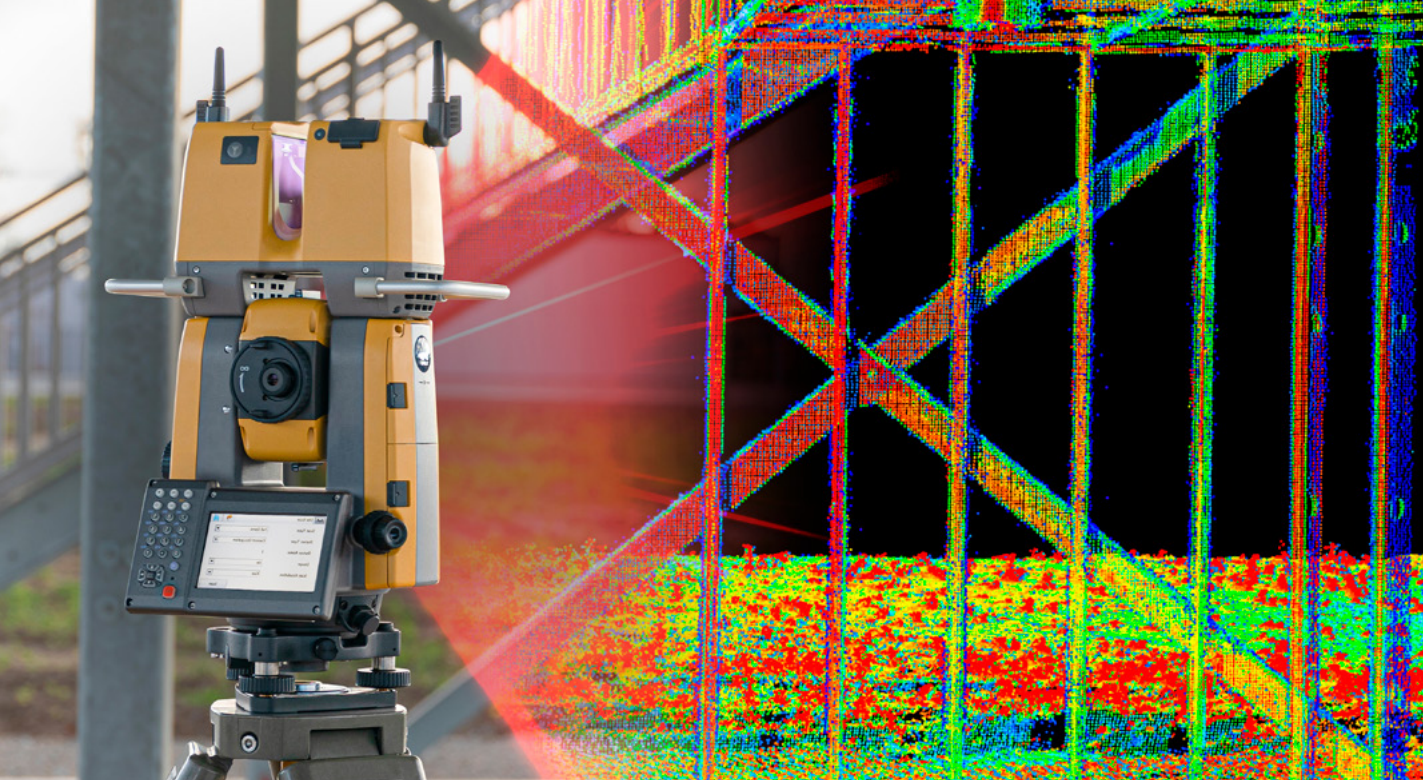
LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON





## 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.



# 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



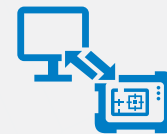


# Building construction layout workflows

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.

INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON





# 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 & lines 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                      | Laser layout eliminates the use of a prism       | Cloud-based import and export file sync routines |
| Practical instrument setups require less preparation | Capability of drawing a layout plan from scratch | Measure height differences like a rotating laser |

INTRODUCTION

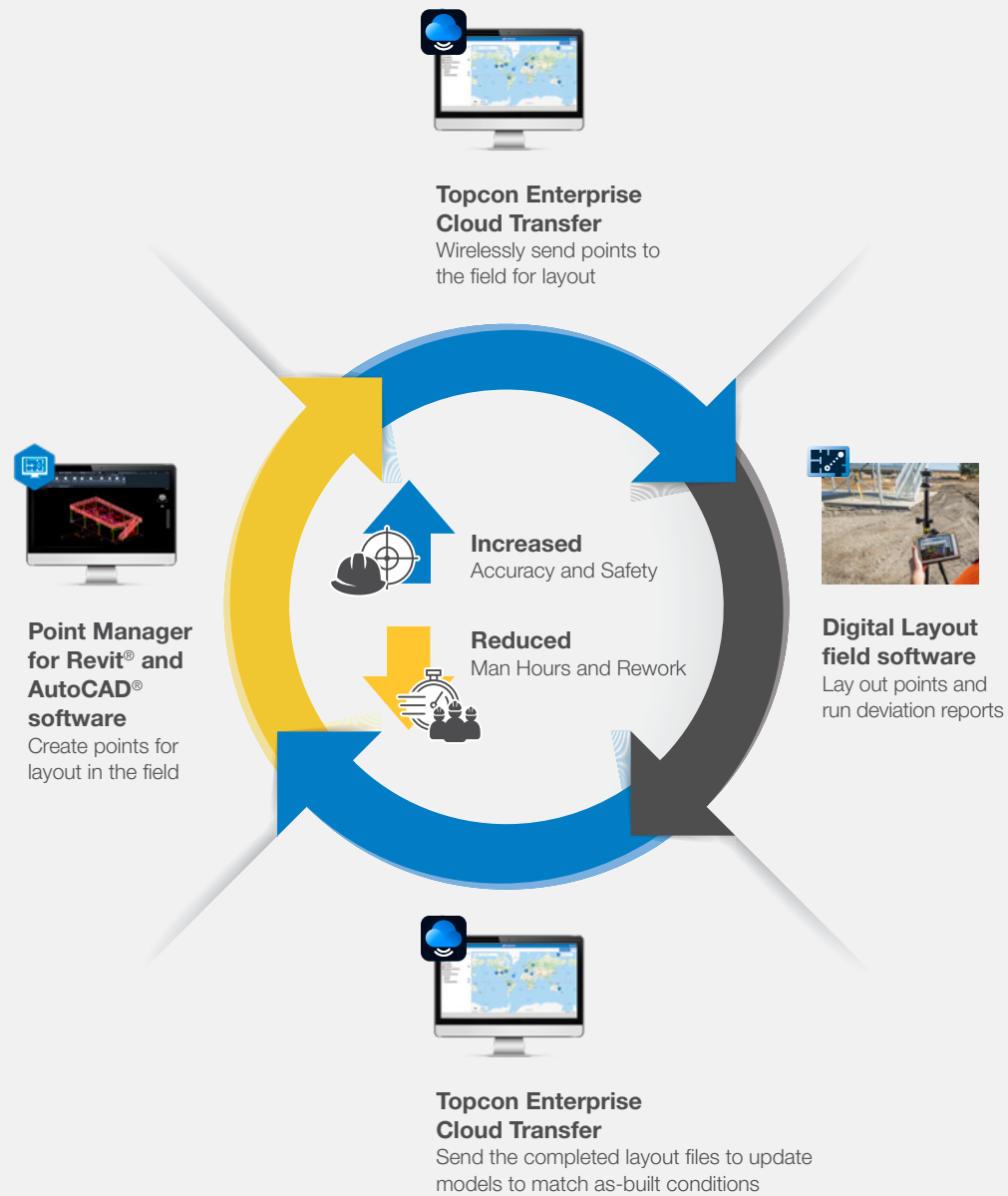
LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON





# 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

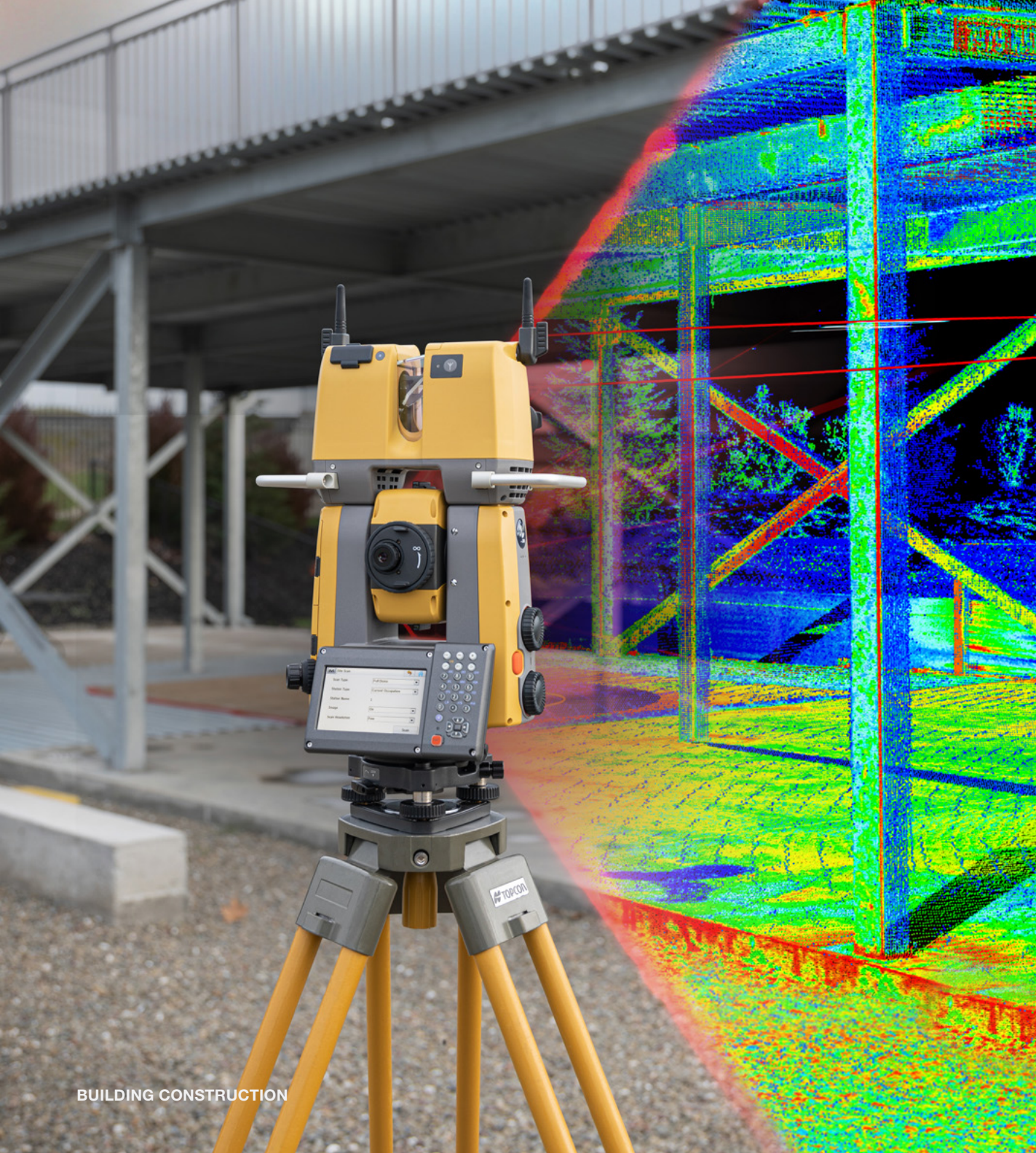
FLOOR  
FLATNESS AND  
LEVELNESS

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

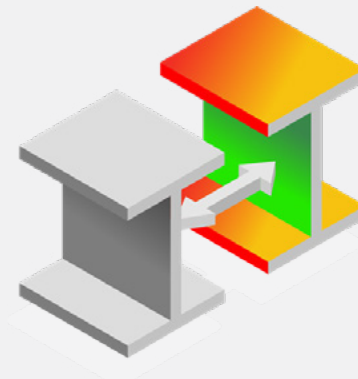


# Workflow benefits for construction verification



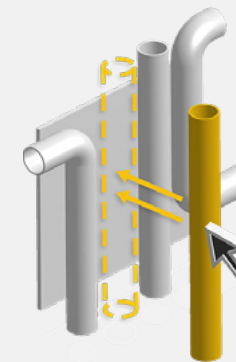
## Reduce rework and redesign

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

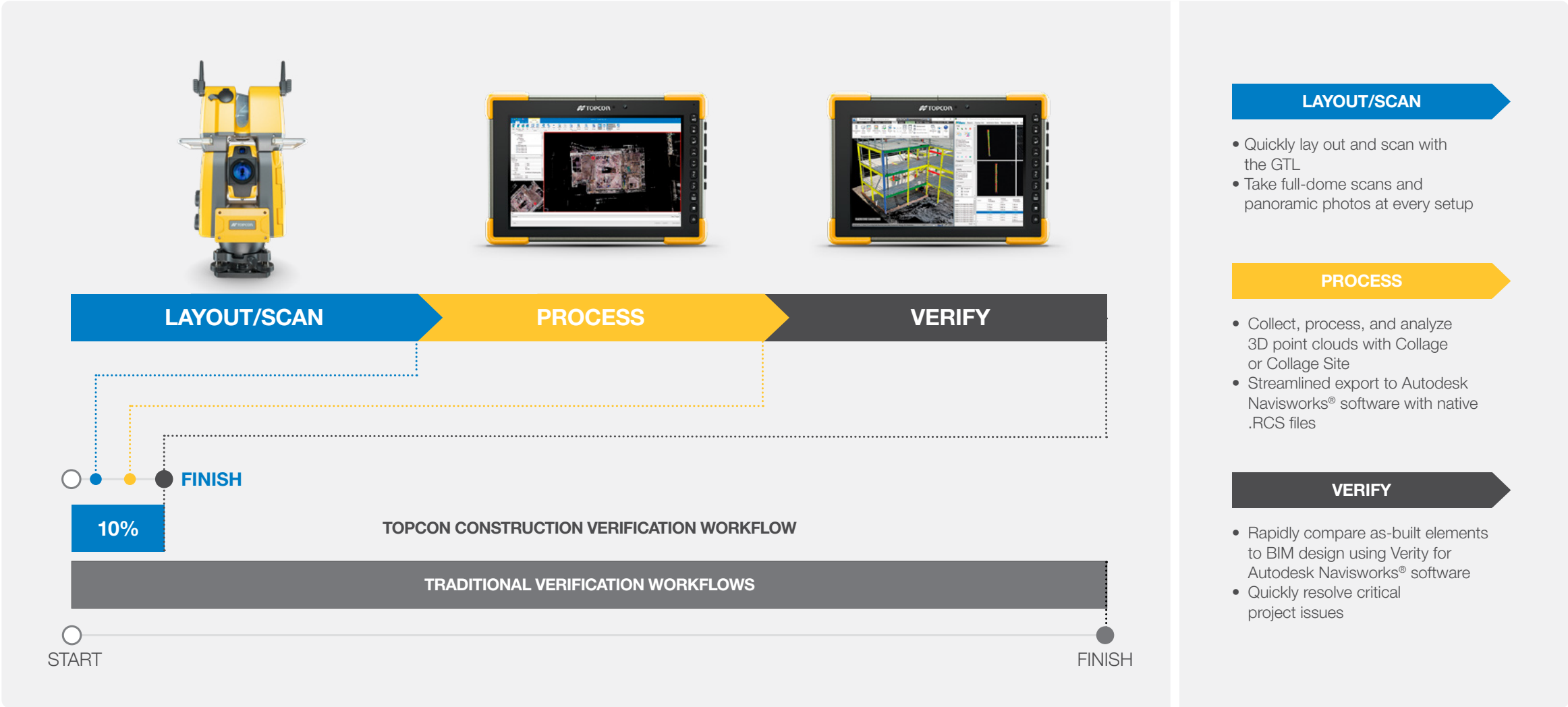
CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON



# Simplified construction verification workflows



INTRODUCTION

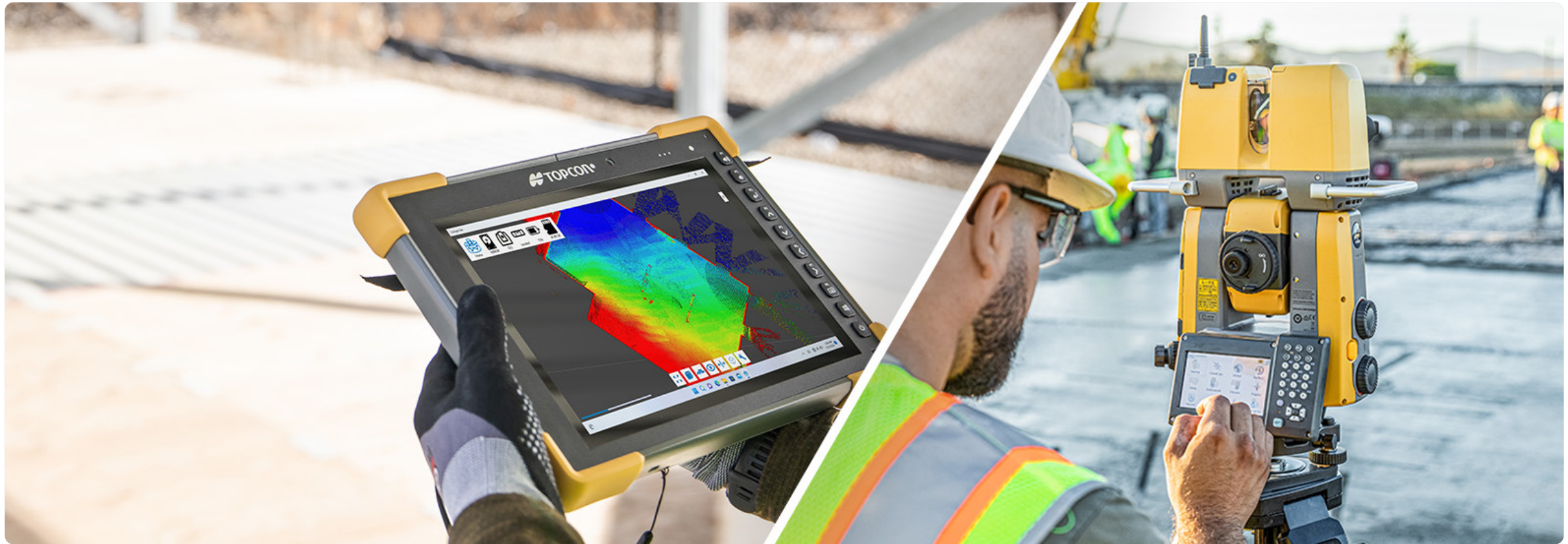
LAYOUT SOLUTIONS

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



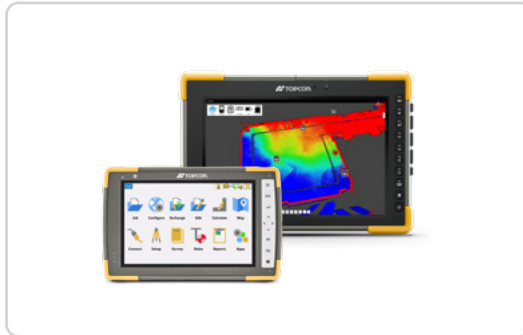
## GTL scanning robotic total station

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.



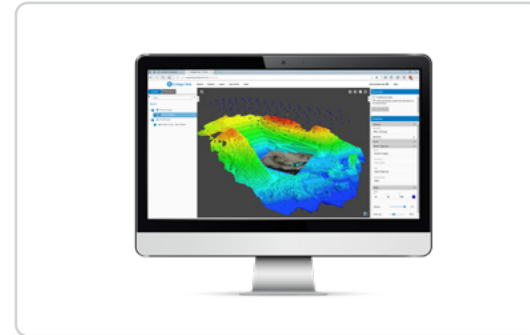
## GLS scanner

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 software.



## Office software

**Collage Office 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.





## Empowering Your Work

As a worldwide leading developer and manufacturer of precision positioning workflow solutions, we help the people who build and feed the world work smarter and faster.

The technology we provide brings increased accuracy, saves time, boosts productivity and efficiency, and lowers expenses, all resulting in greater profitability for you.

Seemingly impossible jobs can be possible because we empower you to do more with less. Projects can be completed with fewer skilled workers with less re-work.

SPEED TO MARKET | GLOBAL NETWORK | EXPERIENCED OEM TEAM

INTRODUCTION

LAYOUT  
SOLUTIONS

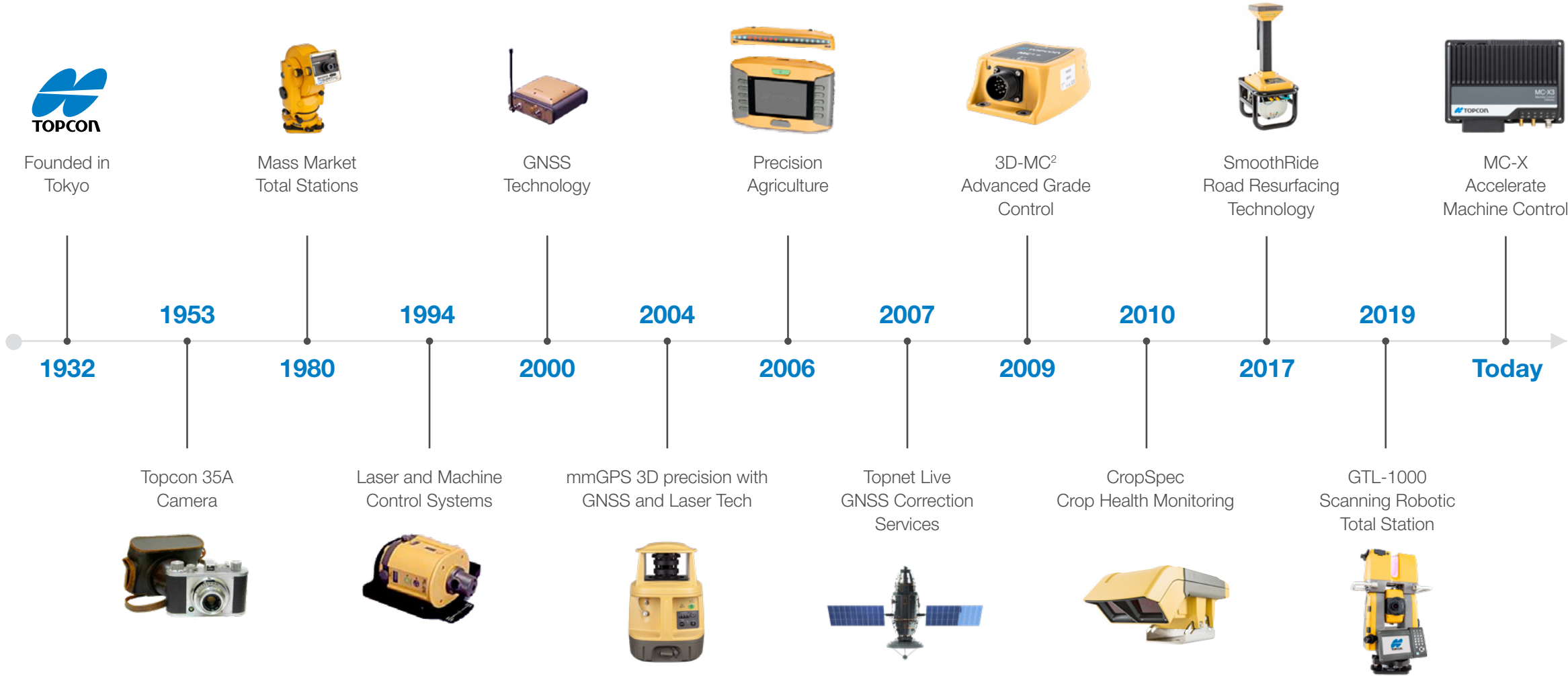
CONSTRUCTION  
VERIFICATION

FLOOR  
FLATNESS AND  
LEVELNESS

ABOUT  
TOPCON



# A History of Topcon Corporation





# Unleash Your Potential

We provide innovative yet intuitive solutions that integrate high-precision measurement technology, software, and data for the construction, surveying, and agriculture industries. By embracing our solutions, our customers can:

- Accelerate infrastructure creation and repairs, ensuring safety and cost-effectiveness
- Efficiently gather and handle vast amounts of data, reducing field time
- Maximize crop yields and returns, all while minimizing environmental impact and preserving natural resources.

We're here to make complex tasks easier – so you can work smarter, not harder.



Topcon Training Center,  
Livermore, CA

Topcon Technology  
Roadshow Truck

Topcon Positioning Systems Headquarters,  
Livermore, CA

INTRODUCTION

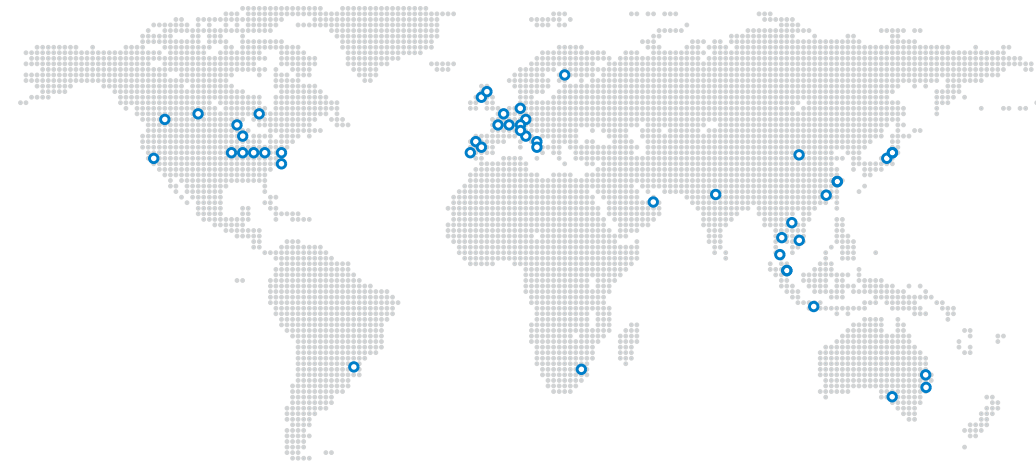
LAYOUT  
SOLUTIONS

CONSTRUCTION  
VERIFICATION

FLOOR  
FLATNESS AND  
LEVELNESS

ABOUT  
TOPCON





4900+ Employees | nearly 3500 Patents



BUILDING CONSTRUCTION

INTRODUCTION

LAYOUT SOLUTIONS

CONSTRUCTION VERIFICATION

FLOOR FLATNESS AND LEVELNESS

ABOUT TOPCON

## Global Reach, Local Touch

Our network of offices, fulfillment centers, manufacturing, services, research and development (R&D) centers, testing sites, and related facilities spans the globe to cater to the diverse needs of our customers. Combined with a network of international dealers and distribution partners, this helps ensure that no matter where our customers are, they can get personal, local support.

## From Small Tasks to Big Impact

We don't just offer fresh ideas and approaches to solve tomorrow's challenges, we also operate on a foundation of responsibility – to our employees, to you, and to the world. Our impact is your impact.

Together, we can continue to meet the challenges of a changing world, make a positive impact, and build a sustainable future.





## 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](https://topconpositioning.com)

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